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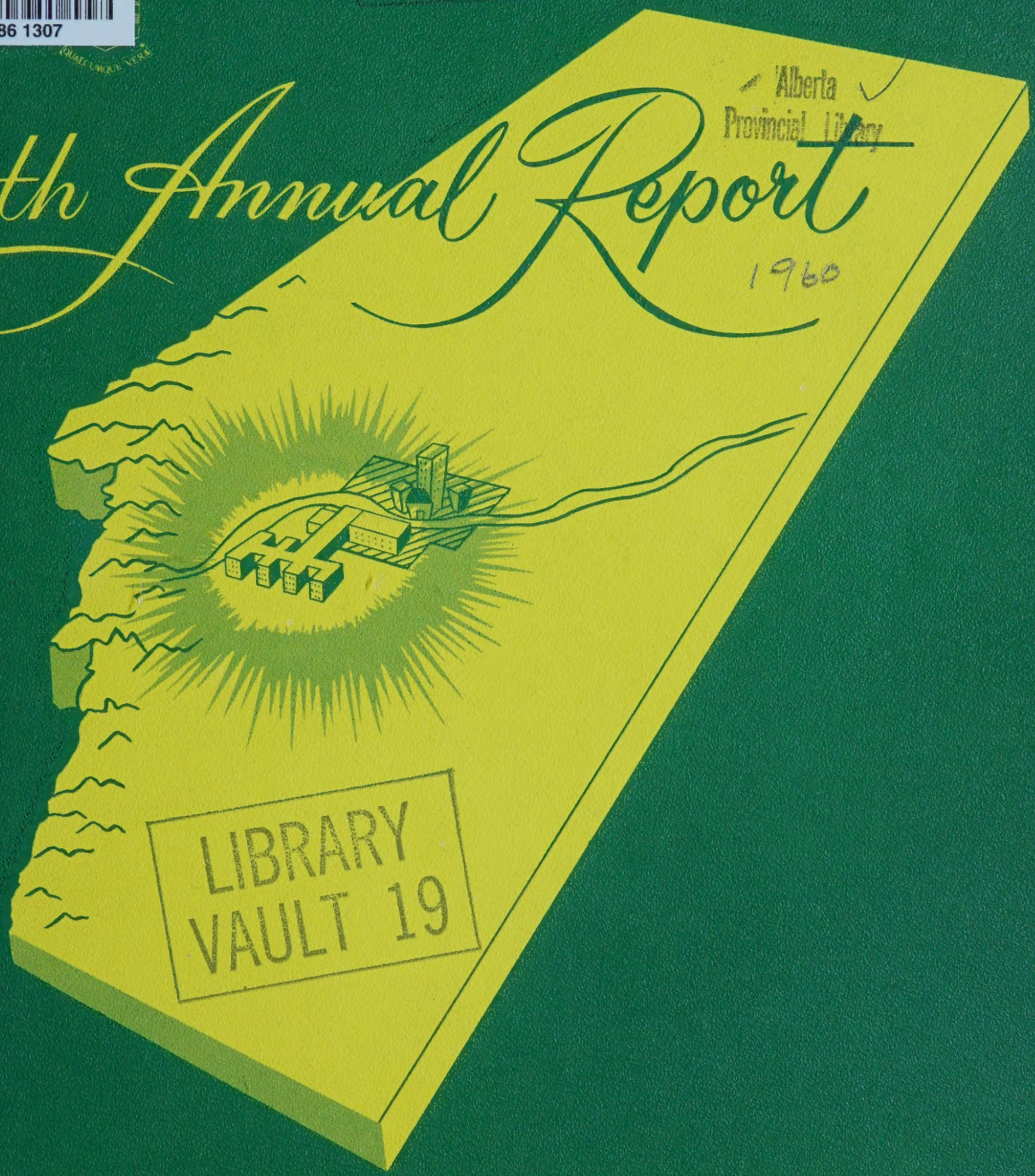

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Thirty Eighth annual report

FOR THE YEAR ENDING DECEMBER 31, 1960

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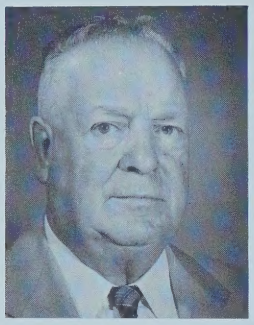
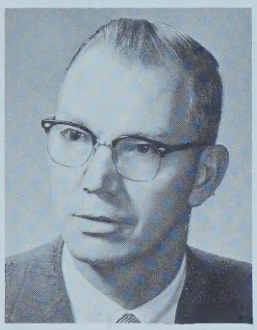
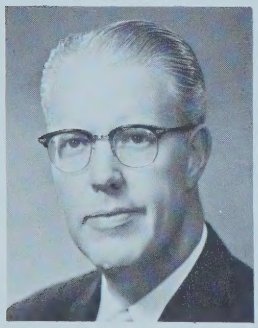


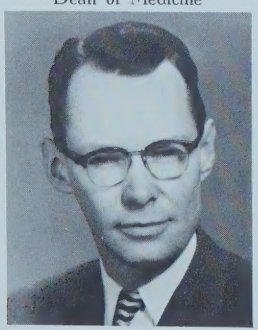
D. J. AVISON
Chairman



L. R. ADSHEAD
Administrator



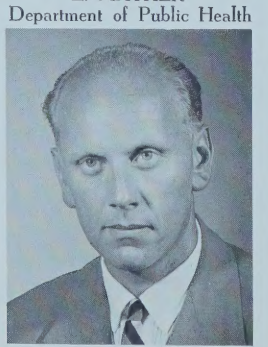
DR. W. C. MacKENZIE
Dean of Medicine



G. C. SHERWOOD
Assistant Administrator

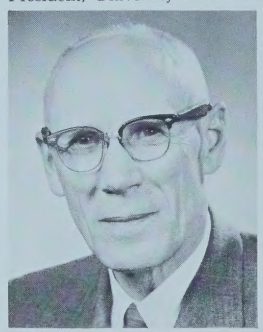
J. M. CURRIE
Asst. Deputy Provincial Treasurer

E. MATHER
Department of Public Health

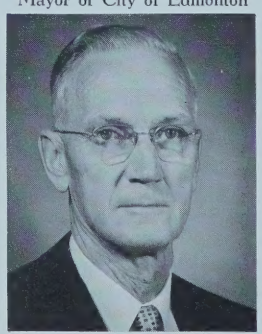


DR. B. SNELL
Medical Superintendent

DR. W. H. JOHNS
President, University of Alberta



DR. E. E. ROPER
Mayor of City of Edmonton



DR. A. SOMERVILLE
Deputy Minister of Health

Mr. L. R. Adshead - - - -	*Administrator*
Dr. B. Snell - - - - -	*Medical Superintendent*
Mr. G. C. Sherwood - - -	*Assistant Administrator*
Dr. D. R. Wilson - - - -	*Director, Department of Medicine*
Dr. R. A. Macbeth - - -	*Director, Department of Surgery*
Dr. J. R. Vant - - - - -	*Director, Department of Obstetrics and Gynaecology*
Dr. J. K. Martin - - - -	*Director, Department of Paediatrics*
Dr. K. A. Yonge - - - -	*Director, Department of Psychiatry*
Dr. M. T. F. Carpendale - -	*Director, Department of Rehabilitation*
Dr. E. A. Gain - - - - -	*Director, Department of Anaesthesia*
Dr. H. E. Duggan - - - -	*Director, Department of Radiology*
Dr. R. E. Bell - - - - -	*Director Department of Clinical Laboratory Services*
Dr. J. W. Macgregor - - -	*Director, Department of Pathology*
Dr. H. R. MacLean - - -	*Director, Department of Dentistry*
Dr. A. S. Little - - - -	*Director, Department of Out-Patient Services*
Dr. F. G. Ramsay - - - -	*Senior Treatment Medical Officer, D.V.A.*
Miss J. S. Clark - - - -	*Director of Nursing*
Miss I. Torrington - - -	*Director of Dietary Department*
Miss J. G. Nairn - - - -	*Medical Records Librarian*
Miss M. Price - - - - -	*Admitting Officer*
Mr. W. W. Maday - - - -	*Director, Pharmaceutical Services*
Mr. J. Ellison - - - - -	*Accountant*
Mr. J. Beaton - - - - -	*Purchasing Agent*
Mr. J. Pedden - - - - -	*Personnel Officer*
Mr. E. Rose - - - - - -	*Maintenance Co-ordinator*
Mr. D. Schneider - - - -	*Laundry Manager*

MEDICAL

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DEPARTMENT OF MEDICINE

(Director—Dr. D. R. WILSON)

Division of Internal Medicine

Dr. D. R. WILSON (Head)
Dr. David M. Bell
Dr. Gordon I. Bell
Dr. M. M. Cantor
Dr. E. F. Donald
Dr. J. Dvorkin
Dr. A. M. Edwards
Dr. J. Frank Elliott
Dr. R. S. Fraser
Dr. J. A. L. Gilbert
Dr. S. E. Greenhill
Dr. K. A. Hamilton
Dr. J. R. Hilliard
Dr. E. G. Kidd
Dr. A. S. Little
Dr. L. E. McLeod
Dr. G. Monckton
Dr. F. B. Rodman
Dr. R. E. Rossall
Dr. J. W. Scott
Dr. P. H. Sprague
Dr. B. J. Sproule
Dr. R. K. Thomson

Division of Dermatology

Dr. P. L. RENTIERS (Head)

DEPARTMENT OF SURGERY

(Director—Dr. R. A. MACBETH)

Thoracic and Cardiac Surgery

Dr. J. C. CALLAGHAN (Head)
Dr. C. M. Couves
Dr. C. S. Dafoe
Dr. H. Meltzer
Dr. C. A. Ross

Division of General Surgery

Dr. R. A. MACBETH (Head)
Dr. J. D. M. Alton
Dr. R. L. Anderson
Dr. R. C. Harrison
Dr. E. Hitchin
Dr. R. J. Johnston
Dr. A. B. McCarten
Dr. W. C. MacKenzie
Dr. B. D. Margolus
Dr. B. Michalyshyn
Dr. H. T. G. Williams
Dr. G. L. Willox
Dr. T. S. Wilson

Division of Neurosurgery

Dr. G. K. MORTON (Head)
Dr. T. J. Speakman

Division of Orthopaedic Surgery

Dr. O. ROSTRUP (Head)
Dr. G. W. Cameron
Dr. R. G. Huckell
Dr. D. C. Johnston
Dr. G. L. Wilson

Division of Urology

Dr. J. O. METCALFE (Head)
Dr. R. R. Francis
Dr. G. N. Tucker

Division of Ophthalmology

Dr. J. W. DUGGAN (Head)
Dr. T. A. S. Boyd
Dr. M. R. Marshall

Division of Otolaryngology

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Dr. W. S. S. Armstrong
Dr. P. T. Quinlan
Dr. T. C. Wilson

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Dr. Donald M. Bell
Dr. L. B. Brown
Dr. J. Bugis
Dr. T. R. Clarke
Dr. Allan Day
Dr. W. Douglas Frew
Dr. R. H. Horner
Dr. M. M. Hutton
Dr. T. R. Nelson
Dr. S. S. Parlee
Dr. E. B. Quehl
Dr. D. C. Ritchie
Dr. Y. Yoneda

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Dr. H. Brock Armstrong
Dr. L. E. Beauchamp
Dr. J. Calder
Dr. N. F. Duncan
Dr. T. A. Gander
Dr. L. C. Grisdale
Dr. K. A. Swallow
Dr. W. C. Taylor

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Dr. K. A. Yonge
Dr. G. D. Carson
Dr. William Forster
Dr. Julius Guild
Dr. S. S. Spaner

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(Director—Dr. M. T. F. CARPENDALE)
Dr. M. T. F. Carpendale
Dr. M. C. Adamson

DEPARTMENT OF ANAESTHESIA

(Director—Dr. E. A. GAIN)
Dr. E. A. Gain
Dr. D. F. Cameron
Dr. C. D. Elton
Dr. W. D. Kyle
Dr. R. G. McCalla
Dr. J. W. R. McIntyre
Dr. G. T. Moonie

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(Director—Dr. H. E. DUGGAN)
Dr. H. E. Duggan
Dr. I. D. Hendin
Dr. C. E. Holmes
Dr. H. F. W. Pribram

STAFF

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(Director—Dr. J. W. MACGREGOR)

Dr. J. W. Macgregor

Dr. G. O. Bain

DEPARTMENT OF CLINICAL LABORATORY SERVICES

(Director—Dr. R. E. BELL)

Dr. R. E. Bell

Dr. D. I. Buchanan

DEPARTMENT OF DENTISTRY

(Director—Dr. H. R. MacLEAN)

Dr. H. R. MacLean

Dr. C. R. Castaldi

Dr. C. G. Duke

Dr. W. S. Hamilton

Dr. J. D. Hawkins

Dr. D. G. MacGregor

Dr. P. D. MacRae

Dr. W. S. Murray

Dr. A. R. Urschel

Dr. R. S. Van Alstine

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DEPARTMENT OF MEDICINE

Dr. Gordon D. Brown

Dr. Andrew Cairns

Dr. W. R. St. Clair

DEPARTMENT OF SURGERY

Dr. R. S. Henderson

Dr. J. R. Huckell

Dr. W. H. Lakey

Dr. D. L. Rees

DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY

Dr. K. Baker

Dr. J. S. Barr

Dr. W. F. Ferguson

Dr. R. J. Ostolosky

DEPARTMENT OF PSYCHIATRY

Dr. Herbert Pascoe

DEPARTMENT OF PAEDIATRICS

Dr. R. Brenda Devlin

DEPARTMENT OF PATHOLOGY

Dr. T. K. Shnitka

DEPARTMENT OF RADIOLOGY

Dr. B. J. Wood

ASSOCIATE APPOINTMENTS:

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Dr. T. H. Aaron

Dr. B. M. Wheeler

Dr. R. H. Whiting

Dr. M. K. Young

DEPARTMENT OF SURGERY

Dr. F. G. Day

Dr. W. F. M. Hall

Dr. A. W. Hardy

Dr. S. Kling

Dr. H. L. Richard

DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY

Dr. A. H. Maclennan

CONSULTING APPOINTMENTS:

Dr. D. J. Campbell (Biochemistry)

Dr. H. B. Collier (Biochemistry)

Dr. D. A. L. Dick (Radiology)

Dr. I. Dyrenfurth (Biochemistry)

Dr. J. R. Fowler (Rehabilitation)

Dr. K. Kowalewski (Experimental Surgery)

Dr. D. B. Leitch (Paediatrics)

Dr. G. M. Little (Public Health)

Dr. J. W. Pearce (Physiology)

Dr. E. J. K. Penikett (Bacteriology)

Dr. A. F. Phillips (Radiology)

Dr. D. B. Scott (Physics)

Dr. E. S. Orford Smith (Public Health)

Dr. A. G. Stewart (Biochemistry)

Dr. R. D. Stuart (Bacteriology)

COURTESY APPOINTMENTS:

Dr. E. Allin (General Surgery)

Dr. W. Anderson (General Surgery)

Dr. J. A. Aylesworth (Tuberculosis)

Dr. G. J. Conradi (Paediatrics)

Dr. F. D. Conroy (Urology)

Dr. G. R. Davison (Tuberculosis)

Dr. W. J. Downs (Tuberculosis)

Dr. E. F. Foy (Ophthalmology)

Dr. Zella Hoar (Anaesthesiology)

Dr. P. J. Kimmitt (Paediatrics)

Dr. W. A. Maclean (General Surgery)

Dr. J. C. McPherson (Tuberculosis)

Dr. J. P. Moreau (Orthopaedic Surgery)

Dr. L. P. Mousseau (General Surgery)

Dr. R. F. Nicholls (Ophthalmology and O.R.L.)

Dr. R. Poirier (Paediatrics)

Dr. F. G. Ramsay (Administration-D.V.A.)

Dr. H. H. Stephens (Tuberculosis)

Dr. W. A. Strutz (General Surgery)

Dr. J. C. Ward (Dentistry)

Dr. N. W. Woywitka (Ophthalmology)

HONORARY APPOINTMENTS:

Dr. N. E. Alexander (Surgery)

Dr. J. E. Carmichael (Anaesthesiology)

Dr. H. H. Hepburn (Neurosurgery)

Dr. C. V. Jamieson (Ophthalmology)

Dr. H. C. Jamieson (Medicine)

Dr. A. C. McGugan (Public Health)

Dr. A. R. Munroe (Surgery)

Dr. J. J. Ower (Pathology)

Dr. R. Procter (Radiology)

Dr. R. M. Shaw (Medicine)

Dr. G. E. Swallow (Paediatrics)

Dr. R. G. Townsend (Orthopaedics)

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J. P. Despres

CARDIOLOGY
C. Valle-Cavero

CARDIOPULMONARY DISEASES
J. L. Brady

ENDOCRINOLOGY
P. M. Crockford

GASTRIC PHYSIOLOGY
R. T. Morrison

PULMONARY PHYSIOLOGY
E. M. Mostyn

MEDICINE

RESIDENT
W. D. Macaulay

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C. E. McDonnell

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G. Piasecki
H. W. Shewchuk
D. S. Wallace

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P. Kozub
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O. Retzer

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J. Siegenberg

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P. E. Levers
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I. W. Wilson
W. W. Yakimets

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RESIDENT
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J. O. Maldonado

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A. Genser

PAEDIATRICS

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H. Ive
D. R. Shea

PSYCHIATRY

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J. Lefsrud

SENIOR ASSISTANT RESIDENTS
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N. J. Carriere
D. G. J. Letts
E. M. Schwab

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D. O. C. Rapier
B. F. Turner

PHYSICAL MEDICINE AND REHABILITATION

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ANAESTHESIA

RESIDENT
M. Ishii

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R. T. Williams

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D. M. Gilmour

RADIOLOGY

SENIOR ASSISTANT RESIDENT
P. F. Claremont

PATHOLOGY

ASSOCIATE RESIDENT
M. A. Scott

JUNIOR ASSISTANT RESIDENT
T. N. Trofimoff

CLINICAL PATHOLOGY

SENIOR ASSISTANT RESIDENT
D. Libman

INTERNS

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K. A. J. Cseuz
R. Gurevitch
L. A. Harker
J. Jimenez
G. L. Kullman
E. Letwin
R. J. McKinney
M. H. Millward
D. K. Miyauchi
J. P. Munroe
M. W. Nicholson
R. F. Pankhurst
M. Sanderson
R. J. Timpson

MEDICAL STAFF COMMITTEES

MEDICAL ADVISORY BOARD

R. K. Thomson
B. Michalyshyn
D. R. Wilson
R. A. Macbeth
J. R. Vant
J. K. Martin
K. A. Yonge
M. Carpendale
E. A. Gain
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J. W. Macgregor
R. E. Bell
A. S. Little
H. R. MacLean
W. C. MacKenzie
K. A. C. Clarke
F. G. Ramsay
D. F. Cameron
J. O. Metcalfe

EXECUTIVE OF THE MEDICAL STAFF

K. A. C. Clarke
J. O. Metcalfe
J. Dvorkin
J. W. Duggan
R. S. Fraser
L. C. Grisdale
T. J. Speakman
T. R. Nelson
J. W. Macgregor

MEDICAL RECORDS COMMITTEE

T. R. Nelson
W. C. Taylor
A. M. Edwards

COMMITTEE ON THERAPEUTICS AND PHARMACY

F. B. Rodman
J. Dvorkin
G. L. Willox
W. Maday

HOUSE STAFF COMMITTEE

D. F. Cameron
B. Snell
H. B. Armstrong
R. C. Harrison
J. R. Hilliard
T. R. Nelson
D. R. Wilson
R. A. Macbeth
J. R. Vant
A. S. Little
J. K. Martin
K. A. Yonge
M. Carpendale
E. A. Gain
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H. R. MacLean
F. G. Ramsay
J. O. Metcalfe
M. R. Marshall

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K. A. C. Clarke
W. D. Frew
J. W. Duggan
R. S. Van Alstine
R. S. Fraser
A. B. McCarten

TISSUE COMMITTEE

G. L. Willox
J. Dvorkin
T. R. Nelson
J. W. Macgregor

COMMITTEE ON OPERATING ROOM SERVICES

R. A. Macbeth
J. R. Vant
E. A. Gain
O. Rostrup
T. S. Wilson

COMMITTEE ON CLINICAL RESEARCH

D. R. Wilson
R. E. Bell
R. C. Harrison

COMMITTEE ON LABORATORY METHODS

J. W. Macgregor
R. D. Stuart
H. B. Collier
R. E. Bell
D. R. Wilson

COMMITTEE ON LABORATORY SERVICES

D. R. Wilson
W. C. MacKenzie
J. R. Vant
R. E. Bell
J. F. Elliott
E. Hitchin

REPORT OF THE BUSINESS ADMINISTRATOR

Mr. D. J. Avison,

Chairman,

University Hospital Board.

Sir:

On September 30th, 1960, Dr. A. C. McGugan retired after 17 years as Superintendent of this hospital. He came to the hospital after many years in various posts with the Provincial Department of Public Health. Shortly before his retirement he was elected to the Council of the City of Edmonton. He is enjoying this activity and we wish him many years of continued health and useful endeavour.

In 1956 it was my privilege, along with the architects of the Department of Public Works, to prepare a long range construction and renovation program for this hospital. Work commenced in 1957, and 1958 saw the completion of a House Staff Residence with 50 single rooms and 24 suites for married staff. With the large number of married staff we now have, our only regret is that the ratio of married and single quarters was not reversed. The year 1960 saw the completion of a major unit of our program—the Clinical Services Wing. This building, 110 feet wide by 210 feet long and six stories high plus basement, houses most of the special treatment facilities of the hospital.

The First Floor contains the Medical Records Department; Doctors' offices and a Chapel. On the Second Floor are the Emergency Department, Outpatient Department and Admitting Office. These are ultra modern in design and are proving quite functional. On the Third Floor are complete Clinical Laboratories for the hospital, including Outpatient treatment area. It also houses the school for laboratory technicians. The Fourth Floor contains a complete Radiological Department with four Fluoroscopic Rooms, five Radiological Rooms, including special rooms for Thoracic and Neurosurgical work. The Therapy section includes deep therapy and superficial therapy equipment. This floor also houses a Photographic Department and the Medical Illustrator. The Fifth Floor has fourteen modern Operating Theatres, including two special theatres, 20 feet by 30 feet, with observation domes above; Recovery Room; Anaesthetists' and Pathologists' offices. The Sixth Floor contains a new Case Room Suite and dressing rooms for the Operating Room Suite.

Concurrently with the construction of the Clinical Services Wing, a new Laundry, Shops and Morgue Building has been constructed. At the time of writing this report, this building has been completed and is now in operation. The Laundry, with the latest automatic equipment, is expected to produce a 50% increase in volume without additional personnel.

The move to the Clinical Services wing released space to permit the renovation of the original 1912 hospital wing, and this is now as modern as the most recent ward units.

The renovation program continues throughout 1961 and into 1962 and should see the completion of renovation of the 1929 wing, construction of an auditorium, new stores and new incinerator. This will complete the long range program and will provide total adult active treatment beds in excess of 1,100 with adequate ancillary services for diagnosis and treatment.

Five years ago the Provincial Government made available a continuing annual grant of fifty thousand dollars for research and for the development of the most advanced methods of treatment. This fund is operated by a special com-

mittee with representation from heads of Medical Departments and the Administration and is chaired by the Dean of Medicine. It is very gratifying to note that the stimulus of this original grant has attracted grants from many sources and while the original grant is still the same, the funds administered by this committee during the current year will exceed $450,000.00. Services and new methods of treatment are continually being developed and made available to the people of Alberta. This is one of the most important functions of the University Hospital and it is hoped this phase of its activity will continue to expand.

The hospital budget continues to grow, the current year's total budget being in excess of seven million dollars. The following analysis indicates the changing trend in sources of income and also that for the first time in the history of the hospital, payroll absorbed 70% of the total expenditures. However, it is noted that the total personnel ratio to beds is still 1.25 staff for each bed and this is favorable compared with other similar hospitals.

My sincere thanks to the Hospital Board, Directors of Departments, members of the staff of the Department of Public Health and Public Works for their assistance and cooperation in meeting the many problems of administration.

Respectfully submitted,

L. R. Adshead,

Administrator

FINANCES

COMPARATIVE STATEMENT OF DISBURSEMENTS

	Years Ended Mar. 31, 1958	(9 mos.) Dec. 31, 1958	Dec. 31, 1959	Dec. 31, 1960
Payroll	$2,922,000	$2,647,000	$4,009,000	$4,401,000
Food	394,000	350,603	501,417	510,110
Medical Supplies	663,000	545,023	826,445	872,275
Plant Maintenance, excluding depreciation	289,903	252,900	313,725	323,772
Miscellaneous	129,400	85,597	134,240	176,360

PERCENTAGE OF HOSPITAL DOLLAR EXPENDED

Payroll	66	68	69	70
Food	09	09	09	08
Medical Supplies	15	14	14½	14
Plant Maintenance	07	07	05½	05
Miscellaneous	03	02	02	03

OUR MAIN SOURCES OF INCOME

Federal Government on behalf of D.V.A. and D.N.D. patients	$ 648,100.00
Provincial Government—direct hospitalization payments	206,552.00
Federal-Provincial Hospitalization Plan	4,086,512.00
Private and Semi-Private differentials	252,730.00
Other Sources—Private patient revenue, W.C.B., Blue Cross, Private Insurance	1,089,623.00
	$ 6,283,517.00

OUR PRINCIPAL DISBURSEMENTS

Payroll	$ 4,401,000.00
Food (Direct cost except salaries)	510,110.00
Medical Supplies	872,275.00
Maintenance including Light, Heat and Water	323,772.00
Miscellaneous	176,360.00
	$ 6,283,517.00

PRINCIPAL ASSETS OF THE HOSPITAL

Cash on hand and in Bank	$ 263,000.00
Inventories	274,000.00
Accounts Receivable—less provision for doubtful accounts	929,200.00
Plant Funds—including land, buildings and equipment	16,800,000.00

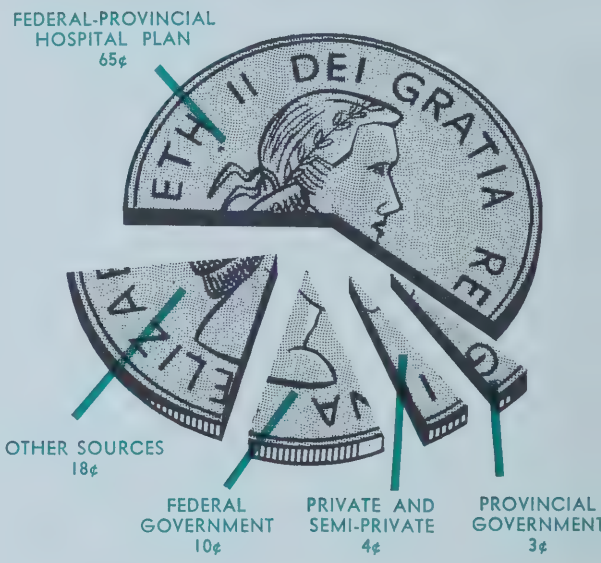
CURRENT LIABILITIES

Trade Accounts—Salaries and wages due	315,344.00

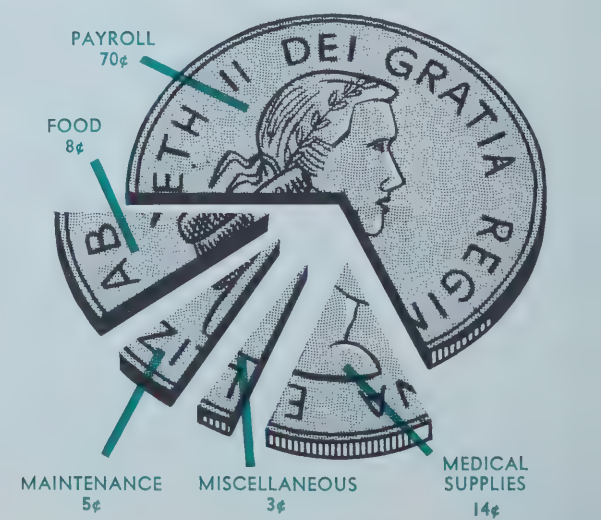
SOURCE OF CAPITAL FUNDS

Province of Alberta	12,676,000.00
University Hospital	1,673,000.00
Federal Government	687,000.00
Federal Provincial Plan	1,930,000.00

WHERE OUR DOLLAR COMES FROM



WHERE OUR DOLLAR GOES



Mr. L. R. Adshead,
Administrator,
Sir:

I have the honour and privilege to submit the Medical Superintendent's Report for the thirty-eighth annual report of the University of Alberta Hospital, covering its operations during the year 1960.

During the year the hospital continued to expand its services, both in volume and range, as is shown in the following departmental reports. The clinical services wing was opened in August, and has considerably improved the overall quality of operation of the hospital. The out-patient department moved from the center of the city to its new location in the clinical services wing in September, and has continued to expand its services since then. The anticipated temporary fall in patient load did not, in fact, occur.

Following his retirement as Medical Superintendent of the hospital, Dr. A. C. McGugan was appointed a member of the Honorary Medical Staff of the hospital. The other appointments made to the medical staff during the year were:

C. G. Duke—D.D.S. (Alberta)
I. Dyrenfurth—D. Rer. Nat. (Heidelberg)
W. F. Ferguson—B.Sc., M.D. (Alberta); L.M.C.C.; Spec. Cert. Obs. & Gyn. R.C.P.S.(C)
I. D. Hendin—B.Sc. (Manitoba); M.D. (Manitoba); Dipl. Amer. Bd. Rad.; Spec. Cert. Diag. Rad. R.C.P.S.(C)
W. H. Lakey—B.Sc., M.D. (Alberta); L.M.C.C.; F.R.C.S.(C)
D. G. MacGregor—D.D.S. (Alberta)
W. A. Maclean—M.D. (Manitoba); L.M.C.C.; F.R.C.S.(C); Dipl. Amer. Bd. Surg.
P. D. MacRae—D.D.S. (Alberta)
R. J. Ostolosky — B.Sc., M.D. (Alberta); L.M.C.C.; F.R.C.S.(C); M.R.C.O.G.
D. L. Rees—B.Sc., M.D. (Alberta); L.M.C.C.; Spec. Cert. Ophth. R.C.P.S.(C); Dipl. Amer. Bd. Ophth.
T. K. Shnitka—B.Sc., M.Sc., M.D., (Alberta); Spec. Cert. Path. R.C.P.S.(C)
R. G. Townsend—B.Sc. (Sask.); M.D., C.M. (McGill); L.M.C.C.; Spec. Cert. Orth. Surg. R.C.P.S.(C) and Alberta; F.I.C.S.
B. J. Wood—M.D. (Manitoba); Spec. Cert. Paed. & Rad. R.C.P.S.(C)

The following retirements from the medical staff took place during the year:

H. M. Barker—Department of Psychiatry
S. D. Fraser—Department of Dentistry
J. R. Hemstock—Department of Anaesthesia
K. A. McMurchy—Department of Dentistry
C. B. Rich—Associate Staff
J. H. Stirrat—Department of Pathology

We regret to report the death of Dr. R. W. Robertson—Division of Ophthalmology.

Internship and residency training programs have continued to expand during the past year, and there are now about one hundred interns and residents being trained in the hospital each year.

We wish to express appreciation for the considerable amount of voluntary aid given to the hospital during the year. As in previous years, much of this assistance has been given under the auspices of the Women's Auxiliary of the University of Alberta Hospital. Many other services and donations have been given by organizations and individuals during the year. To each of them we express our grateful thanks.

It affords me pleasure to acknowledge the help and support which I have received from the members of the Hospital Board, and the cooperation which I have received from all departments in the hospital.

All of which is respectfully submitted.

B. Snell, M.R.C.P.,
Medical Superintendent.

REPORT OF THE PRESIDENT, MEDICAL STAFF

Mr. L. R. Adshead,

Administrator.

Sir:

It is my privilege to submit the annual report from the Executive of the Medical Staff.

The general staff meetings were held on the first Monday of each month for the purpose of transacting the business of the staff and to present brief scientific papers of general interest to the staff. These meetings were well attended, and the following papers were presented:

Dr. J. W. Duggan—Ocular Tuberculosis in Northwest Canada
Dr. E. J. K. Penikett—Some Problems in the Steam Sterilization of Dressings
Dr. D. R. Wilson and Dr. N. R. Bertrand—Diabetes and Pregnancy
Dr. J. C. Callaghan and Dr. D. W. Cardozo—Prepulmonary Bypass for Respiratory Distress in Infancy
Dr. R. A. L. Macbeth—Biochemical Aspects of Human Neoplasia
Dr. E. Elliot—Coronary Flow in Controlled Cardiac Output
Dr. C. M. Couves and Dr. G. Francis—Small Animal Perfusion
Dr. A. C. McGugan—Hospitals and Hospital Administration—Then and Now
Dr. W. Taylor and Dr. Margaret Thompson—Congenital Malformations
Dr. D. J. Campbell—How Good Are Your Lab. Results?
Dr. D. F. Cameron—Newer Concepts in General Anaesthesia
Dr. D. I. Buchanan—The Eighth International Congress of Haematology and Blood Transfusion, Tokyo, Japan

The Executive of the Medical Staff, in conjunction with the Chairmen of the Records and Tissue Committees, meet on the third Monday of each month to discuss the various problems of the medical staff and matters to be presented to the Medical Advisory Board or to be reported at general Staff meetings. In addition, the Executive reviews the monthly reports of deaths and complications received from the Departments of Surgery, Medicine, Obstetrics and Gynaecology, Paediatrics and Psychiatry.

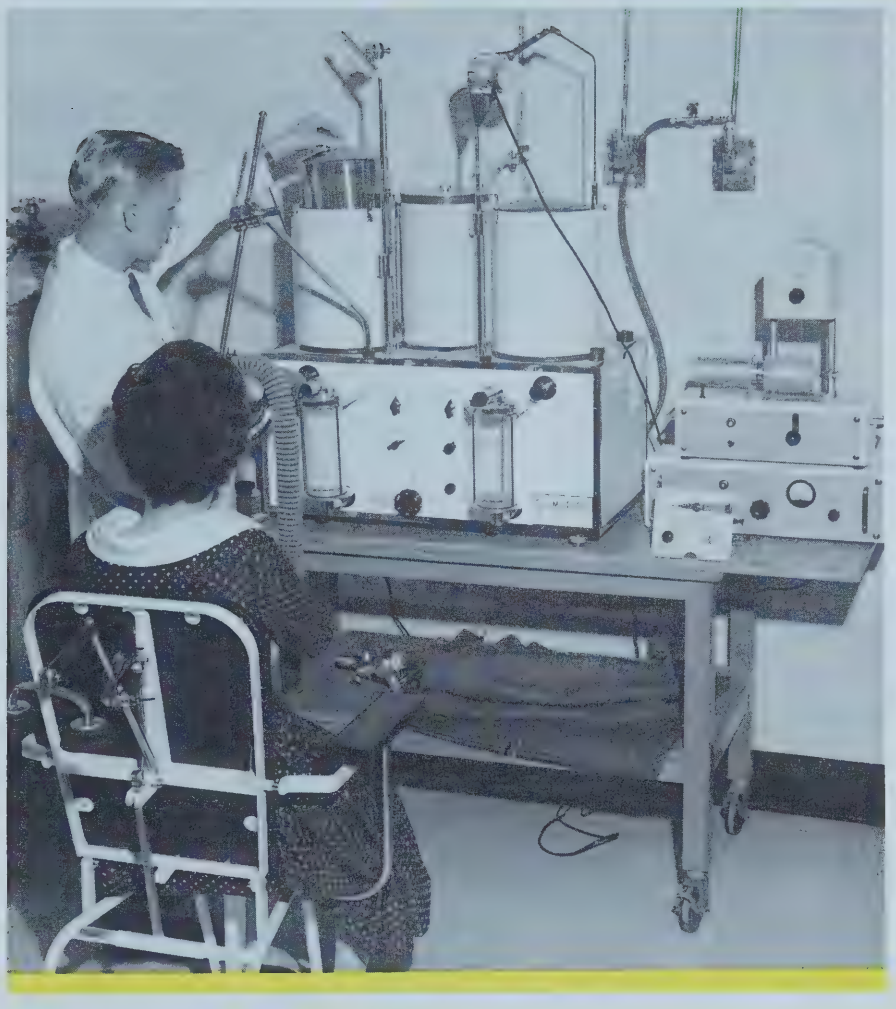
The following Strathcona Prizes in Nursing, sponsored by the Medical Staff, were awarded at the nurses' spring convocation:

Medical Nursing—Miss Margaret Burns
Surgical Nursing—Miss Elisabeth Thiel
Obstetrical Nursing—Miss Charlotte Carter
Psychiatric Nursing—Miss Annie Kuczmak

It is my privilege, on behalf of the Medical Staff, to express our sincere appreciation to the members of the Administration, members of all hospital departments, the house staff, and the nurses, for their help and cooperation throughout the past year.

Respectfully submitted,

K. A. C. Clarke, M.D.
President of the Medical Staff.



Mr. L. R. Adshead,

Administrator.

Sir:

The University of Alberta Hospital by virtue of being the main centre for clinical teaching and research in Alberta, is regarded as the institution in the province where latest advances in medical diagnosis and treatment are available. To ensure that the most recent developments in medical care are provided so far as this is possible, the University of Alberta Hospital Board established a Special Services and Research Committee charged with the responsibility of encouraging and assisting departments and individuals to develop and introduce advances in diagnostic and treatment techniques to the hospital. As these developments flourish best in a climate of clinical research this has also been an important function of this committee. This arrangement has resulted in the establishment in the hospital of a number of special services whose work is reviewed in this report. In most instances more complete details are given in the individual departmental reports.

During the year Dr. A. C. McGugan retired from the committee and was replaced by Dr. B. Snell and Dr. R. A. Macbeth joined the committee representing the Department of Surgery. It was also deemed advisable to add to the committee the president and immediate past-president of the medical staff.

In the Department of Medicine the major new development has been establishment of a pulmonary unit including an inhalation therapy team, under the direction of Dr. Brian Sproule. It is estimated that about one fifth of the population suffers from some respiratory disability, many of whom can be benefited by various forms of inhalation therapy. The team teaches the procedures to the nursing staff, supervises the treatments and maintains all the equipment necessary. As many as ninety cases have been on regular treatments at one time. The diagnostic and research work has undergone extensive growth and a wide range of highly specialized procedures for measurement of respiratory function have been set up and are in use. The pulmonary unit works very closely with the cardiac unit of the Department of Medicine and share laboratory space and other facilities with them.

In the cardiac unit, the follow-up studies on patients who have had open-heart operations has continued. The special technique of inter-cardiac angiography for use in diagnosis of heart lesions by x-ray has been fully developed. An extensive program of investigation of physical fitness and assessment of the effect of physical exercise programs on cardiopulmonary function has been established.

The endocrinology unit under Dr. Lionel McLeod has been provided with new laboratory space for steroid analyses in the Department of Clinical Laboratories. This, and a full-time chemist in the unit, has made possible more extensive development of steroid analyses and a program of research in this field. In association with the Division of Urology, a special renal function unit has been set up and the artificial kidney will be a part of the operation of this unit. Special techniques for investigation of renal function were established.

Dr. George Monckton has extended the work of the muscular dystrophy unit. One of the studies in this disease has been the special study on muscle protein in conjunction with Dr. C. Kay of the Department of Biochemistry. Genetic studies on cases of this disease in Alberta are being carried out by Dr. Margaret Thompson.

In the Department of Surgery, 71 cases of open-heart surgery were carried out. Dr. Callaghan has continued experimental studies of the potential of assisted circulation techniques and management of infants with cardio-respiratory distress. He also has an active program in the investigation on development of artificial heart valves. Dr. Couves has continued with his project using perfusion techniques in the study and treatment of advanced carcinoma. The work with the open-heart surgery has required extensive supplies of fresh blood which have been provided through the special services with the Red Cross Blood Donor Clinic.

Dr. H. G. T. Williams has continued to work in the peripheral vascular unit which was so capably handled in the past by Dr. R. A. Macbeth. Investigation of the use of Vitamin E in vascular disease has continued and a technique for intra-arterial oxygen injections is being set up. These have been used with success in the treatment of cases of intermittent claudication. Problems of instrumentation have delayed the progress of the studies of gastric physiology being carried on by Dr. R. C. Harrison.

In the Clinical Laboratories, Dr. D. I. Buchanan has developed an active program of investigation of immunological problems and has introduced methods for the detection of leukocyte antibodies. He has also been studying the effects of blood transfusions received in open-heart surgery on blood groups and antibody formation. The attempts to set up an in vitro method of assay of the red cell stimulating hormone has met with difficulties, necessitating a new approach to the whole problem. Analytical assistance has been given by Dr. D. J. Campbell to many of the research and special investigative problems being carried out in other departments.

In the Department of Paediatrics, Dr. A. G. Stewart has continued his studies of the enzyme systems in newborn infants. Dr. W. C. Taylor has instituted an intensive investigative program into the respiratory problems of premature infants.

These account for a high proportion of infant mortality. An infant ear oximeter has been provided to assist in this work. A special harelip and cleft palate clinic and a speech and hearing clinic are being developed in co-operation with the Department of Surgery.

The Glaucoma Diagnostic Clinic under Dr. T. A. S. Boyd has studied 113 new patients, of whom 93 were found to have glaucoma. These patients were referred by ophthalmologists from all parts of the province. In addition, 250 follow-up examinations were done. Glaucoma is a major cause of blindness and with early diagnosis this disability can be prevented or greatly delayed in most cases. The clinic is, therefore, offering a very important service.

Dr. H. E. Duggan has continued his study of total body radiation received from internally-administered radioisotopes. The project to measure the radiation received by patients in the course of regular diagnostic x-ray procedures has been extended. A study of the radiological findings after surgical correction of atrial septal defect was completed during the summer.

The extension of the diagnostic, treatment and research work in the radioisotope laboratory has been greatly improved by the new laboratory facilities and the services of a physicist, Dr. Garth Olde. A total of 2,974 diagnostic procedures were carried out. In the past year techniques using radioactive iron in the study of anemia of obscure cause have been set up. A project to study the circulation in the head of the femur following fracture of the neck of this bone has been started. The thyroid clinic has continued to be very well attended and 101 new cases were treated with Iodine-131 during the year.

The Rehabilitation Department under Dr. M. Carpendale, in addition to providing extensive services in rehabilitation of the physically handicapped, has embarked on an active research program. The bacteriocidal effects of ultra-violet light and its effect on wound healing are being studied and an investigation of the effects of fatigue on the muscles of polio cases is also under study. The electromyographic work in the department has been greatly hampered by instrument problems. It is hoped that these will be solved in the coming year. This technique provides useful information concerning muscle and nerve function in the investigation of physical disabilities.

The genetic counselling service of the Department of Paediatrics under Dr. Margaret Thompson has been provided with space in the hospital. One hundred cases for genetic study were referred. A project to investigate chromosome anomalies in human disease has been started and techniques used in this work are being set up. There has been extensive development in human genetics in the past few years and these studies are playing an increasing role in medical diagnosis.

In the Department of Psychiatry a new unit for emotionally disturbed children has been set up. An out-patient service is run in connection with the in-patient service. Thirty children were hospitalized and treated in the unit during the year.

Reference has been made in the report to difficulties of instrumentation. The field of medical electronics and the application of physical measurements using various types of electronic apparatus is a very rapidly developing one. Investigation will be conducted in the coming year regarding future needs for electronic facilities in the hospital.

The committee has received every co-operation from the hospital administration as well as the various individuals referred to who are undertaking the special developments. The mutual interest of both parties to provide the best in medical care has developed services of high order.

Yours sincerely,

W. C. MacKenzie, M.D.,
Dean of Medicine,
University of Alberta, and
Chairman, Special Services and
Research Committee,
University Hospital.

6	DELIVERIES
104	X-RAY EXAMINATIONS
368	REHABILITATION TREATMENTS
72	EMERGENCY PATIENTS
688	PHARMACY SERVICES
35,500	CU. FT. OF WATER
300,150	LBS. OF STEAM
31	OPERATIONS
1,435 EMPLOYEES 475 STUDENTS 180 MEDICAL STAFF	TOTAL PERSONNEL 2,090

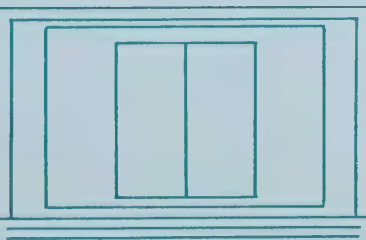
A TYPICAL DAY IN THE HOSPITAL

AVERAGE DAILY OCCUPANCY — 976 PATIENTS

PROVINCIAL LABORATORY TESTS (UNITS)	1,080
HOSPITAL LABORATORY TESTS (UNITS)	2,215
BLOOD TRANSFUSIONS	22
X-RAY FILMS	305
ANESTHETICS	36
MEALS SERVED COST OF FOOD	4,234 $1,340.00
ELECTRIC KW HOURS	19,290
CENTRAL SUPPLY SERVICES	4,100
LBS. OF LAUNDRY PROCESSED	14,680

UNIVERSITY OF ALBERTA HOSPITAL

59
DMISSIONS



59
DISCHARGES

334
OUT-PATIENT
VISITS

South West View of University of Alberta Hospital

Mr. L. R. Adshead,
Administrator.

Sir:

On behalf of the Department of Medicine, I should like to extend to you my sincere congratulations on your appointment as Administrator of the University Hospital. I can assure you that in the past the Department of Medicine has very sincerely appreciated all the time and effort that you have devoted to building the reputation of the University Hospital. It is my hope that we shall look forward to many years of mutual collaboration in continuing to extend the activities of all departments in this hospital in the realms of patient service, medical research and undergraduate and graduate teaching.

I should like to deal first with the changes which have taken place in undergraduate education. There has been little if any change in the third year undergraduate teaching program, except that now the great majority of their teaching is done in the Mewburn Pavilion. The assignment of students to a designated number of beds has been a successful innovation this year. With respect to the fourth year teaching program, considerable changes have taken place in that the Out-Patient Department is now physically part of the University Hospital, and the number of patients being admitted to the in-patient service has increased considerably. This has made it possible to give some, but not all, of the fourth year students an increased measure of responsibility in the out-patient and in-patient areas. It is our hope next year to be able to provide this out-patient teaching facility to all of the fourth year class. I should like to record at this time my sincere congratulations to Dr. Little, who has recently been appointed as Medical Director of the Out-Patient Department. As a member of the Department of Medicine, he will continue to participate in the undergraduate and graduate teaching program of this department. I feel quite sure that in his new position he will do a great deal to enhance the reputation of this hospital as a teaching institution.

With respect to the graduate teaching program, which has been under the direction of Dr. R. E. Rossall, I should like to say that we are continuing to expand the activities in this area. During the past year we were extremely pleased to note that all of the candidates who completed all, or a significant portion of their graduate training program with us, were successful in their examinations, both for Certification and for Fellowship in the Royal College examinations held this past year. This measure of success augers well for the future and, in no small measure, indicates the rising quality of the graduate teaching program.

During the year the department made its contribution to continuing medical education in the form of a short course in chest disease. Dr. Cameron Gray from the University of Toronto and Dr. Ruben Cherniack from the University of Manitoba were the guest speakers.

With respect to activities which have been carried out under the auspices of Special Services as far as the Department of Medicine is concerned, this will be covered under the Special Services report.

In the division of pulmonary function and respiratory disease, which is under the direction of Dr. B. J. Sproule, it is gratifying to note that he has been awarded a substantial grant from the Department of Health and Welfare and from the Alberta Tuberculosis Association to extend the work which was described in last year's annual report. The techniques for measuring pulmonary function have now been validated and are routinely employed in the investigation of all patients. The inhalation therapy section has now become fully established and is making an extremely valuable contribution in acute respiratory poliomyelitis, and in various complicated post-operative problems. With the addition of two technicians to

this section of the division, it is now possible to provide inhalation therapy service around the clock. During the past year, two Fellows have been trained in the pulmonary division—Dr. Mary Mostyn and Dr. John Brady. It has become increasingly obvious during the past year that this division of the department is fulfilling an extremely valuable role in its collaborative service with many other departments in the hospital.

In the cardiovascular division, there has been considerable activity in developing cineangio techniques in collaboration with the Department of Radiology for the investigation of patients with cyanotic heart disease. This division has also entered into joint studies with the Department of Physical Education of the University of Alberta in investigating methods for assessing physical fitness and exercise tolerance. It is hoped that considerable data of interest will come out of this study during the next year. The division continues to carry out follow-up studies on all patients who have had open heart surgery. It is very much to the credit of these patients that they have returned voluntarily for these unique studies to be carried out.

During the past year Dr. C. Valle Cavero, who came to us from Baltimore, has completed one year of training as a Fellow in this division.

In the division of endocrinology and metabolism, Dr. Inge Dyrenfurth, a well qualified steroid chemist, has joined the division and during the past year has established chromatographic techniques, permitting the determination of a large number of hormone metabolites. With the improvement in the laboratory techniques, which she has brought about in the past year, it will be possible to conduct clinical investigations on a broader basis than was heretofore possible. Dr. David Fawcett has developed techniques for chromatographic isolation of thyroid hormones in tissues and blood, and has been continuing his studies in binding of hydrocortisone by plasma proteins. A beginning has been made on more modern measurements of renal function, and, in collaboration with the division of urology in the Department of Surgery, newer methods of human dialysis have been introduced. During the past year the metabolic unit has been hampered somewhat by the alterations which are going on in the old building, and it is unlikely that this unit will see itself settled in permanent quarters for another one to two years. However, it is hoped that once renovation of the old building is completed this unit can look forward to a permanent home. Dr. Peter Crockford completed a year of training as Fellow in Endocrinology.

In the division of neurology, a qualified biochemist has been added to the research program on muscular dystrophy. It is hoped that within the not too distant future a biochemical contribution to the muscular dystrophy program can be anticipated.

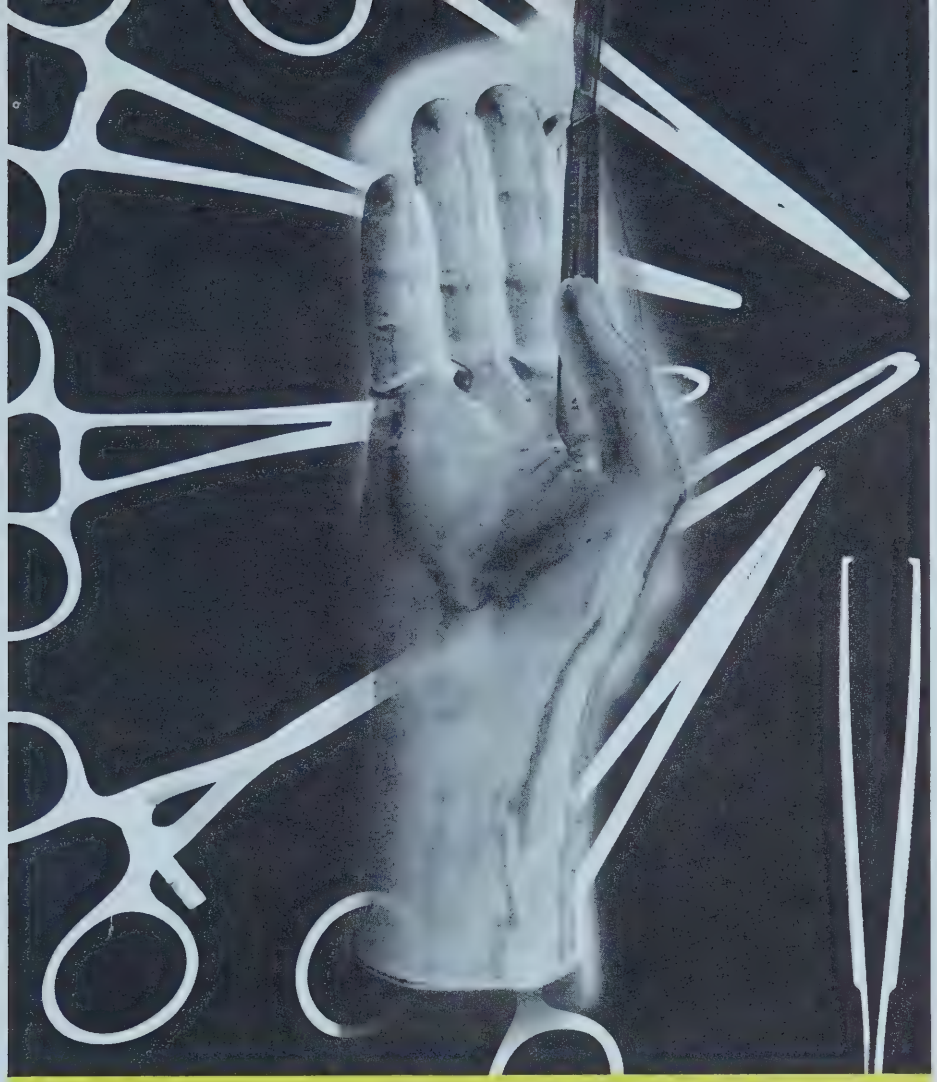
Dr. E. F. Donald has been elected President of the Alberta Division of the Canadian Medical Association. This is an appropriate recognition of his wise counsel and many contributions to the administration of the division.

One of the main advances this year as far as the Department of Medicine is concerned has been the transfer of the Out-Patient Department to the new clinical services wing of the University Hospital. Within the short time that this department has been operating in its new facilities, there are already encouraging signs of a very productive teaching and research area for years to come. During the past year Dr. Frank Perera has been the Teaching Fellow and has contributed greatly to the undergraduate and graduate teaching program.

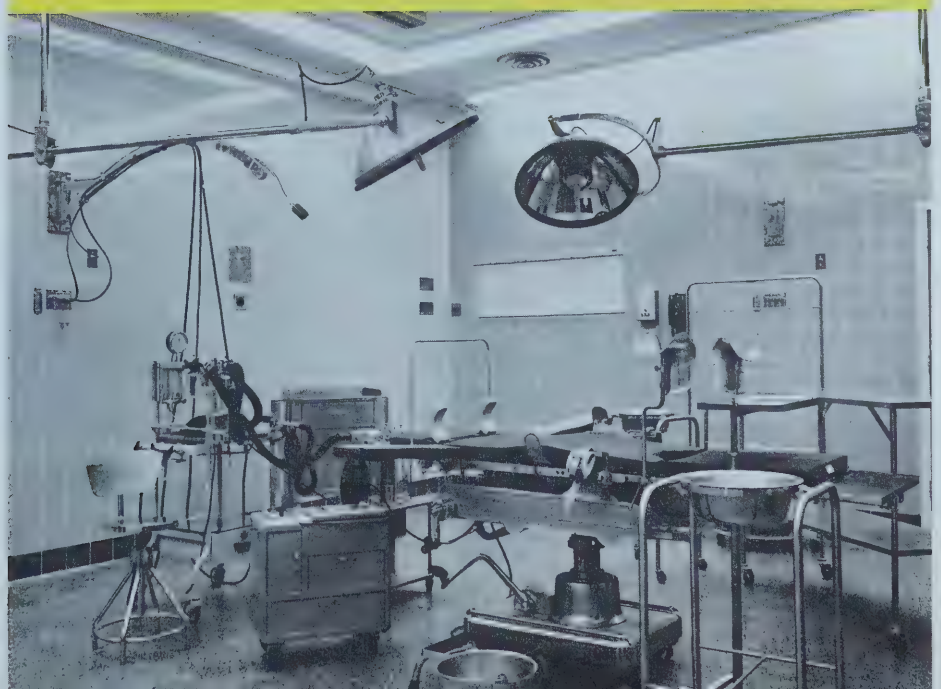
It would not be proper to conclude this report from the Department of Medicine without recording a special vote of thanks to Dr. A. C. McGugan, who retired as Medical Superintendent during the year. At all times he proved to be not only interested, but continuously helpful in advancing the work of this department. His absence from our midst will be sorely missed in the years to come.

Respectfully submitted,

D. R. Wilson, M.D.,
Director,
Department of Medicine



DEPARTMENT OF SURGERY



Mr. L. R. Adshead,

Administrator.

Sir:

I am honoured and privileged to present to you at this time a report of the activities of the Department of Surgery in the University of Alberta Hospital for the year ending December 31st, 1960.

It is fitting at the very outset of this report to record the indebtedness of the Hospital as a whole, and more particularly the Department of Surgery, to Doctor W. C. MacKenzie who for the last twelve years has guided its destiny in the capacity of Director of Surgical Services. During this short period the Department has grown from one of purely local recognition to one of international reputation due almost entirely to his foresight, contagious enthusiasm and limitless energy. The Department is indeed fortunate that, in giving up the Directorship of Surgery to assume his new responsibilities as Dean of Medicine, his sage counsel will continue to be available to us all. We, in the Department of Surgery, appreciate this opportunity to extend to Doctor MacKenzie our sincere congratulations on his appointment as Dean of Medicine and to assure him that the high personal standard of service to this institution which he exemplifies will continue to be the objective which we in the Department will strive to attain.

The year 1960 has been one of continued expansion and reorganization in the Department of Surgery due largely to the opening of the new Service Wing of the hospital. The fifth floor of the new wing houses the new operating room suite composed of fourteen theatres which, both in design and equipment, are unsurpassed on the North American Continent. Ten of these theatres were in active operation by the end of the year, thus fulfilling a long time need for increased facilities for the operative care of patients. This has also resulted in a substantial reduction in the delay period of patients awaiting surgery. It is gratifying to be able to record that a move of this magnitude was accomplished with a minimum dislocation of efficiency due to the co-operation of the Administration and the Departments of Nursing and Anaesthesia.

With the opening of the new Service Wing, the Out-Patient and Emergency Department also acquired new quarters and provided the Department of Surgery and its various Divisions and Special Clinics with facilities for considerable expansion and increased effectiveness in patient care in these areas. It is a privilege for us to record our indebtedness to Doctor A. Little, the newly appointed Director of the Out-Patient and Emergency Department, for his co-operation during the difficult transition period and for the efficiency with which the greatly improved facilities for patient care and surgical teaching were made available to our department.

The Division of Orthopaedic Surgery under the direction of Doctor O. Rostrup continues to grow in international stature as indicated by the fact that it was selected as one of two Canadian centres to be visited by a group of five travelling Orthopaedic Fellows, four from Great Britain and one from Australia during their visit to Canada in April, 1960. Increased effectiveness in patient care within the Division during the year has been largely due to the exceptionally fine physical facilities provided in the new operating and out-patient and emergency areas for the management of patients with orthopaedic problems. Increased activity in both fundamental and applied research in the Division resulted in the presentation of papers on "The Replacement of Ligaments of the

Knee in Dogs with Teflon" and "A 10 Year Review of Patients Treated for Ligamentous Injury of the Knee" during the year. One of the most gratifying indications of the growth of the Division has been the increased number of able young surgeons who are being attracted to it for graduate training.

The Division of Neurosurgery has continued its active role in patient care and teaching. In the former area the development of an active programme for the surgical relief of Parkinson's disease has been an outstanding achievement. A programme of graduate training in Neurosurgery is also gradually being developed. The course in brain modelling which was introduced this year has been eminently successful.

In recognition of the ever increasing activity of the cardiopulmonary surgeons in the hospital, this service was formally re-organized into the Division of Cardiopulmonary Surgery of the Department of Surgery under the direction of Doctor J. C. Callaghan in September of this year. During the year a total of 1,177 surgical procedures were carried out by the Division of Cardiopulmonary Surgery including 63 open heart operations utilizing extra corporeal circulation. Advances in patient care in this Division have paralleled an intensive research programme centered around valvular abnormalities of the heart and the development of prosthetic heart valves, studies on perfusion of sheep embryo prior to birth with a view to the application of this technique to infant resuscitation and studies on the perfusion technique as applied to various forms of shock. Many of the studies carried on by this Division have been reported at national and international meetings during the year.

Dr. C. M. Couves of the Division of Cardiopulmonary Surgery has continued to perfect the technique of isolation and perfusion in connection with the administration of anticancer drugs to patients suffering from malignant disease. The ingenious method which he and his group have perfected for the study of perfusion techniques in small animals has been widely reported and acclaimed during the year.

It is with considerable pride that we record that Doctor W. H. Lakey, one of our own graduates and a product of our own postgraduate training programme, returned to this hospital on the 1st of July, 1960 to take up a geographic full time position in the Division of Urology. Dr. Lakey has been instrumental, along with Doctor J. O. Metcalfe, the Director of the Division, in the setting up of the new improved Kolff twin coil artificial kidney in this hospital. This unit has been provided by funds made available through the Special Service Committee of the Hospital and as a result of its increased portability and effectiveness has already proven its worth in the treatment of patients with acute renal failure.

On the 1st of September, 1960 with the retirement of Doctor M. R. Marshall, the Director of the Department of Ophthalmology-Otolaryngology, these two important services were re-organized as Divisions of the Department of Surgery and new Divisional Directors appointed. On the occasion of his retirement we should like to take the opportunity of recording the appreciation of the Department of Surgery to Doctor Marshall for the immense amount of time and effort which he has expended over the years on behalf of graduate training in all the departments of the hospital.

It is a privilege to welcome to the Department of Surgery Doctor J. W. Duggan, the newly appointed Chief of the Division of Ophthalmology and Doctor K. A. C. Clarke, the Chief of the Division of Otolaryngology. In the Department of Ophthalmology, the Glaucoma Clinic conducted by Doctor T. A. S. Boyd continues to expand and perform a most valuable service insofar as patient care and research into problems related to glaucoma are concerned. During the year the entire hospital staff was shocked by the tragic death of Doctor R. W. Robertson. This was no more keenly felt anywhere than among his friends and associates in the Division of Ophthalmology. We feel, however, that we have been most fortunate in obtaining Doctor D. L. Rees as a new member of this division to fill the

gap created by Doctor Robertson's untimely death at the peak of his career. Work is progressing towards the establishment of a diagnostic centre for hard of hearing children under the Division of Otolaryngology but as yet the facilities to put this much needed service into operation are not available.

The department has continued to participate in the Adjuvant Chemotherapy Programme, designed to critically assess new drugs of possible usefulness in the treatment of cancer. The programme, under the direction of Doctor C. M. Couves and Doctor A. B. McCarten, already includes 96 patients with cancer of the stomach and 21 patients with cancer of the lung. In addition peritoneal washings from 237 patients with abdominal malignancies have been obtained for cytological examination. This programme is a co-operative effort contributed to by all four general hospitals in the city.

During the year the valuable contribution of Doctor R. C. Harrison to surgical research and teaching was recognized by the University of Alberta in his promotion to the rank of full Professor in the Department. Doctor Harrison's many contributions to fundamental knowledge of gastric physiology resulted in an invitation from the American College of Surgeons to produce a film on "The Choice of Operation in Duodenal Ulcer". This film was produced by the American Cyanamid Company and shown at the 1960 Congress of the American College of Surgeons.

The Peripheral Vascular Unit too, was not exempt from the spirit of administrative change that permeated the department in 1960. Doctor H. T. G. Williams who has been intimately associated with the operation of the unit for the past few years assumed the position of Director in September and continues to offer a valuable diagnostic service in this field to the doctors of the province.

The vigilance of the Committee on Surgical Infections, composed of Doctor T. S. Wilson and Doctor R. D. Stuart has been recorded in previous reports. As a result of their constant supervision our hospital continues to maintain an enviable record with respect to surgical infections.

I should like in closing to take this opportunity to express my personal appreciation to yourself and to Doctor MacKenzie, Doctor Snell, Mr. Sherwood, Miss Clark and the other members of the Administrative, Medical and Nursing staff who have done so much to help me over the rough spots during these difficult first months of my tenure of the directorship of the department.

All of which is respectfully submitted.

Robert A. Macbeth, m.d.,
Director, Department of Surgery.

Mr. L. R. Adshead,
Administrator.

DEPARTMENT OF OBSTETRICS & GYNAECOLOGY

Sir:

The past year has contributed an increasing number of clinical problems and has enabled the members of our department to provide a share in the teaching of nurses, and of undergraduate and graduate students.

Our obstetrical admissions and our deliveries have increased by approximately 8%, and this, in part, has been due to the increase in the number of patients from O.P.D. (269 admissions; 228 deliveries). These latter admissions have provided clinical material whose responsibility redounds to the benefit of our resident staff.

During 1960, there were no maternal deaths from women delivered in this hospital. Two women, however, Mrs. "Z", died in emergency of hemorrhage from a ruptured uterus without being admitted to hospital; and Mrs. "R", No. 193021, died of acute respiratory failure caused by idiopathic pulmonary hypertension following delivery, four weeks previously, in another city hospital. These catastrophes were not in any sense associated with our primary care.

The interest in our Prenatal Classes has continued and during the past year, an increased number (210) have complete attendance five or more times, to receive instruction and to perform the exercises which are advised. These enthusiastic women have contributed to the increased use of local anaesthesia for delivery, and the need for a decrease in sedation, which has provided a more active atmosphere at many of the deliveries. This has, in turn, decreased the number of complications during delivery and has, in great measure, reduced the volume of postpartum blood loss.

Our program of early ambulation and the active use of our nursing measures have contributed to patient comfort and satisfactory recovery at the time of discharge from the hospital. The postpartum exercise classes, given by a member of Dr. Carpendale's Department of Physical Medicine, have contributed, as well, to the comfort of our patients.

Our intrapartum complications have increased in number during the past year and this has necessitated a slight increase in the number of caesarian sections by which we obviated our difficult or impossible vaginal deliveries. Yet, nevertheless, the section rate is still 5%; a most satisfactory incidence, when one considers the variety of problems which we encounter amongst our admitted, referred, patients.

Our experience with the Rh negative mother who is delivered, has been interesting. This is best summarized and compared with 1958 and 1959 in the following table:—

Hemolytic Disease and Hyperbilirubinemia in Infants Born at U.A.H.

	1958	1959	1960
Rh Hemolytic Disease			
(1) Number of infants	25	26	24
(2) Number of infants exchanged	25	26	24
(3) Number of exchanges	—	38	43
ABO Hemolytic Disease			
(1) Number of infants	7	14	24
(2) Number of infants exchanged	5	10	9
(3) Number of exchanges	—	16	13
Hyperbilirubinemia of Unknown Cause			
(1) Number of infants	10	14	23
(2) Number of infants exchanged	—	5	6
(3) Number of exchanges	—	8	6
Total Number of Infants Exchanged	30	41	39
Total Number of Exchange Transfusions	—	62	62

As Dr. W. C. Taylor notes—

> The number of cases of Rh hemolytic disease diagnosed and treated remains the same for the three years.
>
> The number of cases of ABO hemolytic disease and hyperbilirubinemia of unknown cause have doubled each year. The reason for this probably lies in the more frequent use of microbilirubin estimation for detection of hyperbilirubinemia.

The usefulness of this hospital as a center to which these mothers may be admitted and where these babies are offered an increasing chance of survival is quite apparent. As I have mentioned previously, these procedures provide one of our contributions to the welfare of the Province. For this contribution, we are indebted to the Red Cross Blood Transfusion Unit, and to Dr. D. I. Buchanan, and to Dr. Kenneth Martin and his staff in the Department of Paediatrics.

In 1960, there were 28 neonatal infections; a great decrease over previous years. Of these, 14 showed Staphylococcus aureus, 5 were pustules, 6 were thrush, 2 were E. coli with anal abscesses, and 1 Shigella sonnei. The vigilance of our Infection Committee is again to be commended, and our thanks to Dr. R. D. Stuart and his staff in the Department of Bacteriology are again gratefully acknowledged. The continued systematic daily routine of washing and cleaning of the nurseries and the rooms in our obstetrical department, I think, have contributed, in great measure, to the decrease in our postnatal and neonatal infections, and this, in the light of present-day problems, certainly must be continued.

We have derived, throughout the year, a great deal of information from our monthly Perinatal Rounds, and these have provided both informative and interesting material. The staff of the Pathology Department have contributed in no little measure to the success of these conferences.

The loss of our Teaching Fellow and our inability to obtain a successor has impaired our afternoon supervision and teaching of our undergraduate and resident staff.

The table below denotes the admissions and deliveries for the past five years and is included for comparison:—

Year	Admissions	DELIVERIES		
		Per Vaginam	Caesarians	Total
1956-57	1880	1645	88	1733
1957-58	2061	1853	99	1952
1958	2108	1882	87	1969
1959	2254	1969	103	2072
1960	2436	2099	111	2210

Here follows a statistical summary of our 1960 obstetrical admissions, deliveries and perinatal deaths:—

Admissions	2,436
Undelivered	226
Vaginal deliveries	2,099
Abdominal deliveries: Initial—53 (Caesarians) Repeat—58	111
Total deliveries	2,210

Babies delivered—

Liveborn	Male	1,149	including Twins	Male 6 pr.
	Female	1,049		Female 13 pr.
				Mixed 5 pr.
Deadborn	Male	21		Triplets 1 set.
	Female	17		
Perinatal Deaths—			Mature 5	
Stillbirths		38	Premature 18	(2.2 lbs.-5.5 lbs.)
			Non-viable 15	(under 2.2 lbs.)
Neonatal (7 days)		35	Mature 9	
			Premature 18	
			Non viable 8	
Over 7 days		3	(Premature)	

Our overall perinatal mortality rate was 33 per 1,000 total births, but if we delete the non viable babies, it is decreased to 26.5. which compares favorably with the provincial average. Moreover, our overall rate has been influenced by the higher rate in country admissions (47 per 1,000), and O.P.D. admissions (43 per 1,000). Curiously, though, multigravidity does not increase the perinatal mortality rate.

Our hospital staff activities have included instruction to both second and third year undergraduate students, to graduate trainees, a course of lectures to undergraduate nurses, and in conjunction with the Department of Paediatrics, two courses in Premature Nursing Care for Nurses. We have also taken part in the instruction in the Post Graduate Nursing Course in Obstetrics and in the lectures to the School of Physiotherapy.

The thanks of the members of our department are due to the continued care provided by the Case Room staff and the supervisors and nurses on the postpartum wards. To Miss P. Legault and her staff in both the Premature and the Mature baby nurseries, we again owe our thanks for the continued care of our newborns. During the year, Miss Alice Dudman, the Obstetrical Supervisor, resigned to be married, and was succeeded by Mrs. Donelda Ellis. To them both, we are indebted for excellent and intelligent supervision of the department.

Our gynaecological admissions increased slightly and have about reached a maximum for our bed capacity, as the waiting list grows longer, especially for public ward beds. Our major surgical procedures increased 14% and provided variety for our resident staff.

We have continued the practice of obtaining vaginal cultures and cervical cytology smears on all admissions. Our examining room has been used extensively (2,282 patients have been examined) and has again proven of value for consultation and teaching.

Our infections have been few in number (9), and included 4 Staphylococcus aureus, and one each of typhoid carrier, aerobacter pyogenes, Shigella sonnei, postpartum infection (delivered elsewhere), and one infection following abdominal hysterectomy; all recovered.

A five year survey of admissions and operations may be of interest for comparison:—

Year	Admissions	OPERATIONS		
		Major	Minor	Total
1956-57	1331	464	769	1233
1957-58	1439	457	799	1256
1958	1548	500	919	1419
1959	1629	495	1027	1522
1960	1666	567	1067	1634

Nine deaths occurred on our wards:—

Postoperative ——— #73118 Age. 68. Death three weeks following total hysterectomy and bilateral salpingo-oophorectomy for bleeding; due to atherosclerosis and occlusion left coronary artery.

Cancer—

Cervix	#187730	Age 48	Deaths due to obstruction and infection.
	#196061	Age 40	
	#185890	Age 35	
	#37070	Age 91	
Ovary	#87808	Age 43	Recurrence following surgery for cancer of ovary.
	#42025	Age 38	
Presumed in pelvis	#107686	Age 57	Generalized carcinomatosis of pelvis.
	#189142	Age 86	

Addresses given, papers published and investigations being undertaken, are noted in the appendix.

Dr. T. R. Nelson and Dr. W. F. Ferguson, our geographic full time staff members, have rendered invaluable aid (as have all the other clinicians), in caring for patients and instructing undergraduate and graduate students.

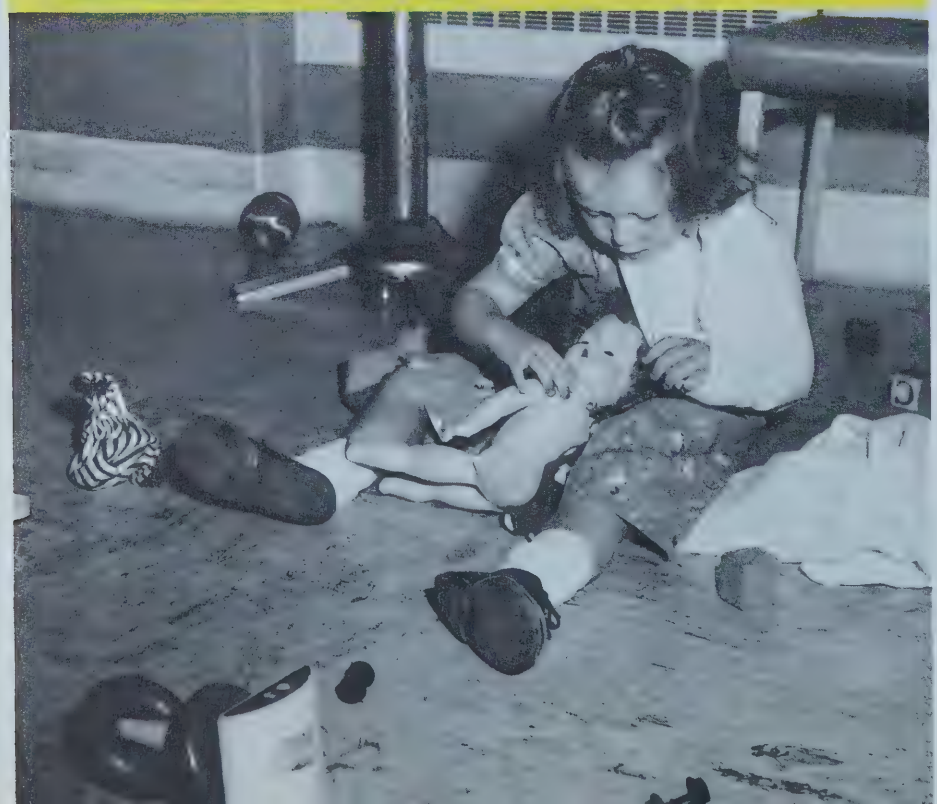
Miss Tod and her assistants have looked after our patients in a careful, kindly and considerate manner.

The Nursing Office, the Medical Superintendent, the administrative officers, and the various members of the service staffs, have all been courteous and helpful throughout the year. To all these, our gratitude is hereby acknowledged.

Respectfully submitted on behalf of our department,

J. Ross Vant, M.D.,
Director,
Department of Obstetrics and Gynaecology.

DEPARTMENT OF PAEDIATRICS



Mr. L. R. Adshead,

Administrator.

Sir:

It is my privilege to submit the annual report of the Department of Paediatrics for 1960.

Admissions to the Paediatric Wards during the year totalled 3,178. There were 53 deaths, with 48 autopsies. As a result of the increased incidence of poliomyelitis in the Fall, practically all the beds on Station 24 have been occupied by children convalescing from this disease. As most of these children remain in hospital for several months this has increased the problems of admissions to the unit as a whole. The average number of children awaiting admission at the end of each month has been 37. The length of time of patients in hospital has averaged 12 days. Bed occupancy has been 78.5%.

Total visits to the Out-Patient Department were 2,713, of which 676 were new patients and 164 were admitted. A special clinic for adolescents has been arranged under the supervision of Dr. K. A. Swallow. The Poison Information Service instituted by the Provincial Department of Health at the University Hospital has given a 24-hour service. Paediatric Residents have taken the calls. There is a panel of consultants from whom further information can be obtained. Dr. W. C. Taylor supervises this service.

Doctors N. F. Duncan and K. A. Swallow were given part-time appointments in the University of Alberta with the rank of Assistant Clinical Professor. This has enabled them to spend considerably more time each week at the University Hospital. Dr. Duncan is working in association with Dr. R. S. Fraser in the field of congenital heart lesions. Dr. K. A. Swallow has been supervising the work of the Out-Patient Department, with special interests in social and environmental factors, and the problems of the adolescent. She has been accepted for 1 year's training in maternal and child health at Johns Hopkins University, Baltimore, Maryland, starting next September. A close liaison has been maintained between the Departments of Paediatrics and Preventive Medicine (Dr. Stanley Greenhill). Dr. Gordon W. Selby came to Edmonton to practice in association with Dr. Brock Armstrong, and has the privileges of the Hospital. In February 1960, I was awarded a Child and Maternal Health Grant that enabled me to attend a post graduate course in Paediatric Neurology at the University of Minnesota.

As teaching Fellow in Paediatrics Dr. D. Wilkinson replaced Dr. E. J. Turner who has entered practice in the City. The entire resident staff changed this year, and we welcomed Doctors V. Braaten, K. Moffitt, H. Ive, B. Heap, G. W. Hughes, and D. R. Shea. Dr. Beryl Heap left at the end of December to assume the duties of Medical Officer of Health at Peace River. Dr. John Birkbeck left last June, and was awarded a Queen Elizabeth Fellowship for $5,000.00, which enabled him to take further training and research at the University of Iowa. Mr. J. J. Harrington continued a very active teaching programme for patients in hospital at the High School level. We welcomed Mr. P. Stolee in September who taught Grades 1 to 8 on Station 24. The load has become so great as to necessitate consideration being given to having a third teacher whose main efforts would be concentrated on Station 23. Mrs. V. J. Cranfield as co-ordinator of recreation has built up an excellent service for the children on our wards. She has co-opted some 53 volunteers who gave 2,643 hours in the last year. This is an essential programme for children's wards, particularly for those patients who remain in hospital for many months.

Teaching at the undergraduate and post-graduate level has continued to increase in volume and efficiency. The staff have actively participated in activities of other departments, and have contributed lectures and demonstrations to courses in Premature Nursing Care, Public Health Course in Child Care, Advanced Practical Obstetrics, in addition to the training programme for nurses at the University Hospital. Paediatric rounds are held twice monthly on Thursdays at 8:30 a.m. in addition to the regular Tuesday 11:00 a.m. sessions. We have appreciated the facilities offered by such community health services as Child Guidance Clinic, Cerebral Palsy Clinic, School for the Deaf, and Edmonton City Well Baby Clinics.

Appended are papers presented and written, and research carried out during the past year. Dr. A. G. Stewart had a third year medical student working with him during the summer of 1960. Mr. H. Eist was supported under a National Research Council Grant, No. MA-824, and most of his work was concentrated in working up a method for micro blood pH's.

It is with great pleasure I again acknowledge the contributions made by the Administrative, Nursing and Ancillary staff of the Hospital during the past year, without which our efforts could not succeed.

Respectfully submitted,

J. K. MARTIN, M.R.C.P.,
Director,
Dept. of Paediatrics

DEPARTMENT OF PSYCHIATRY

Mr. L. R. Adshead,
Administrator.

Sir:

It is my privilege to submit to you a report of the activities of the Department of Psychiatry for the year ending December 31, 1960.

After the rapid expansion of the Department over the previous two years, this year has been one largely of consolidation. The clinical services have been maintained throughout the year to the full bed capacity of the Department. With a steadily increased demand, as the only hospital in the City of Edmonton operating a Department of Psychiatry, we can hardly expect to be able to meet all the demand.

As a Special Service the unit for Emotionally Disturbed Children was opened January 25, 1960 as Station 23 within the general area of the Department of Paediatrics. This diagnostic and short-term treatment service has proved to be in great demand. This is only the third unit of its kind to be organized in Canada. It is thus in the forefront of a modern trend in the Psychiatric care of children. This unit was opened under the direction of Doctor Harold Barker. He was replaced by Doctor A. N. McTaggart in August of 1960. Doctor McTaggart's joining our staff has greatly increased the strength of the Department in the area of Child Psychiatry.

There has been a rapid expansion of our services in the Out-Patient Department since the opening of that department in the new Clinical Services Wing. Psychiatric Clinics are now held twice weekly with a steadily increasing demand.

After a prolonged absence due to ill health, Doctor S. Spaner returned to the D.V.A. Service to be enthusiastically welcomed by his many colleagues and friends. In his absence Doctor H. Pascoe had most ably taken over much of the D.V.A. psychiatry.

The clinical service of the Department, in the area of Social Casework, has been further enhanced by the addition to the staff of Mrs. Isabel Molyneux as a part time Psychiatric Social Worker.

In the area of diagnostic psychology, Miss Evangeline Scraba has joined our staff to replace Miss M. Koch.

The teaching function of the Department has largely followed the patterns set down during the revision of the previous year. Medical students in each of the second, third and fourth years are given instruction through clinics in the Department. The innovation of training students in their second year in the art of medical interviewing with the use of rooms with one way screens and audio relay apparatus is proving particularly valuable. This arrangement for observing students in action was extended this year in connection with the final oral examinations of the fourth year students.

Our teaching staff has been strengthened during the year by the appointment of Doctor Henry Wojcicki on a part-time basis. His part in the teaching of fourth year medical students in the Out-Patient Department is proving particularly valuable.

The revised lecture program to the student nurses is proving not only particularly acceptable to the students, but effective as judged by examination results. Our nursing teaching strength has been increased by the appointment of Mrs. Jennie Wilting as Assistant Clinical Instructor-Supervisor.

The Postgraduate Residency Training Program in Psychiatry has been further consolidated. We are grateful to the various members of the Department of Psychology and the Department of Sociology for their ready assistance in contributing to the seminar program in the basic sciences related to Psychiatry.

On behalf of all the members of our staff I should like to express deep appreciation for the helpful cooperation of the Nursing Staff and for the ready assistance, encouragement and guidance received from you, from Doctor Snell and from the several members of the Administrative Staff.

Respectfully submittel,
K. A. YONGE, M.D.,
Professor and Director,
Department of Psychiatry

DEPARTMENT OF REHABILITATION

Mr. L. R. Adshead,
Administrator.

Sir:

It is my privilege to submit the annual report for the Department of Rehabilitation for the year ending December 31st, 1960.

The development of a long range research program in rehabilitation has been the main project in this department during 1960.

Research

The generous grant from the Alberta Polio Foundation has enabled us to give that emphasis to research so essential to the development of the whole field of rehabilitation. With this grant, a research fellowship has been established and we were particularly fortunate to obtain in September a well-trained physiatrist, Dr. Shirley McLuer, as the first research fellow.

Projects have been commenced in three areas — basic research, research into improving patient service in rehabilitation and research into improving teaching methods of rehabilitation.

Basic Research

1. *"A study of the bactericidal action of long wave ultraviolet light under varying oxygen tensions".*

This study has been undertaken by Dr. Penikett and Dr. Carpendale and is part of Dr. Carpendale's continuing study on 'The effects of light on wound healing'.

2. *"A study of the weight of body segments in water".*

This project has been undertaken by Dr. McLuer with the specific purpose of determining the most efficacious method of exercise therapy for paralysed patients in water.

3. *"A study of the effect of fatigue on the motor unit in poliomyelitis".*

This project has also been started by Dr. McLuer but is held up until we obtain some special electromyographic equipment from England. The purpose of this study is to determine whether a simple objective test of motor unit fatigue can be established with a view to regulating more accurately the amount of exercise taken by poliomyelitis patients.

Research into improving Patient Service in Rehabilitation
"A study of nursing procedures and methods in Poliomyelitis and Spinal Cord Injury Units in Great Britain".

Miss Olga Wollenski, Clinical Instructor and Supervisor in Rehabilitation Nursing, spent May, June, July and August visiting and working in special centres in Great Britain. She visited St. Thomas' Hospital, and the National Hospital (Queen's Square Neurological Institute) in London. She also worked at the following spinal cord injury and poliomyelitis centres: Stoke Mandeville Hospital, Aylesbury; Lodge Moore at Sheffield and the Regional Spinal Unit at Southport.

The experience gained has been invaluable in establishing a much more practical, efficient and realistic nursing program on the Rehabilitation Ward, 66, and the Respiratory Poliomyelitis Ward, 67.

Research into improving teaching methods in Rehabilitation
Recording of patient progress by 'time-lapse' photography.

It has long been recognized by all professional workers in Rehabilitation that the greatest enemy to progress in the entire field of Rehabilitation is apathy in the medical profession. Apathy stems from ignorance and ignorance in turn arises from poor teaching.

The teaching of rehabilitation shares in the problems of all other branches of medicine (lack of trained staff, lack of staff time, lack of student time, etc.) but has one problem in which it differs from most other disciplines. Much of rehabilitation is concerned with chronic illness and disability. To treat these disorders takes time, a great deal of time, and improvement in the patient's condition is only appreciated by those people who see the patient over the whole period of their rehabilitation program; this may be a few weeks, but is usually many months. Clearly it is difficult to see the improvement that occurs because of the slow change. But lack of appreciation of improvement following treatment produces loss of interest in the student, whether it be medical student, physiotherapist or nurse.

To solve this problem, a two year project has been started to record by means of 'time-lapse' photography the progress of a number of selected patients at regular intervals during their Rehabilitation. To do this, we have been fortunate in securing the services of Mr. N. Zubko from Cine-Audio, Edmonton, to assist in making the necessary cinematic case records of a poliomyelitis child, a paraplegic and a patient with severe multiple sclerosis.

All these projects have been made possible through the Alberta Polio Foundation Research Grant to the University of Alberta for which all those working in the field of Rehabilitation in the province will be extremely grateful.

Patient Service

In spite of the great emphasis on research this year which the patients will benefit from indirectly, direct patient service has also improved by the addition of new staff positions.

Our consultant staff in Rehabilitation has increased by one this year. Dr. Gordon Parish, who arrived in September, is a physiatrist with wide experience in rehabilitation in general and rheumatology in particular. He is a very welcome addition to the staff and has already contributed a great deal to improve the overall patient care in the department.

Our first resident in Rehabilitation, Dr. Jose Jimenez, also an experienced physiatrist, started with us in January, and again, helped improve direct patient care, especially on Ward 66.

Mrs. Jean Clarke, our speech therapist, previously working part time, has now come on full-time staff and again patient service has been markedly improved. We are extremely fortunate in having such an experienced therapist on staff. This year, Mrs. Clarke spent one month in New York making a study of oesophageal speech training for patients with total laryngectomy. This was made possible through a training grant from the Provincial Government and will be invaluable in rehabilitating these unfortunate patients.

In Occupational Therapy, we have been fortunate in obtaining an experienced craftsman, Mr. Glen Mellott, who started in January. He has contributed a great deal not only by his help in training patients, but also by making adaptive devices for patients, both at hospital and at home.

This is the first year in which we have had a full complement of occupational therapists and even this happy state has only been present since September.

Our main problems in patient care this year have been related to the large number of severely involved polio patients reflecting the epidemic state in Alberta. Evidence of this is shown in the statistical report.

Statistical Report

Physiotherapy and Hydrotherapy Section	1959	1960
Total Number of treatments given	53,725	60,309
Total Number of patients treated	4,788	3,924
Total Number of Polio treatments given	6,713	25,549
Total Monthly average for Polio patients treated	28½	52
Remedial Exercise Section		
Total number of treatments given	26,992	27,211
Total number of patients treated	3,232	3,384
Occupational Therapy Section		
Total Number of Treatments given	20,194	21,570
Total Number of patients treated	2,342	2,624
Combined Totals		
Total Number of treatments	107,624	134,634
Total Number of patients treated	10,704	10,556

Comment

Nearly twice as many polio patients and more than three times as many polio treatments were given during 1960 as compared with 1959. Polio patients particularly during the acute stage require a great deal of treatment time and consequently this limits the number of other patients that can be treated overall in the Department. This is reflected in the physiotherapy and hydrotherapy sections where most of the polio patients are treated. Here the overall number of treatments have increased by 14%, while the total number of patients treated has fallen by 17%. This change is also reflected in the figures for the whole department—treatments up 26% but patients treated down 2%. There are no other very significant changes to be seen in the statistical reports.

This annual report with its comments on research, patient service and statistics shows only obliquely our indebtedness to other people and departments. This year, we would particularly like to record our indebtedness to Dr. McGugan who championed the cause of rehabilitation in this hospital. Although we miss Dr. McGugan, we appreciate the continued help and cooperation we have received from yourself, Dr. Snell and all other medical and administrative departments.

All of which is respectfully submitted,

M. T. F. Carpendale, M.D.
Director of Rehabilitation

DEPARTMENT OF ANAESTHESIOLOGY

Mr. L. R. Adshead,
Administrator.

Sir:

The year 1960 was for the first eight months a routine very busy period. The remaining four months after our move into the new Service Wing has been a slow and relatively non-productive period for this department's staff, although the total volume of work increased over the same period last year.

The move into the Service Wing was accompanied by many expected problems. The new regulations concerning traffic flow and bookings at first resulted in a great deal of inefficiency and uneconomical use of the space available. As a result the hours and overtime work have been as great as ever. The amount of staffed operating rooms which are not being used to capacity is very large and as a result steps have been taken which we hope will eliminate this waste of staff and space. These changes should increase the patient turnover in the operating room and therefore provide more surgical beds with a resulting increase in surgical volume.

In July 1960 the full time staff of the department was increased by three. Dr. Z. Hoar resumed work on a full time basis and Dr. Hagen a former resident joined the staff. Dr. F. C. Haley was appointed as Assistant Clinical Professor in the University Department and also joined this department. Unfortunately in November Dr. J. Hemstock resigned from the staff which has left us short-handed until another anaesthetist is appointed.

	Total Anaesthetics Administered	Elective	Emergent
1959	8,723	7,559	1,164
1960	9,010	7,778	1,232
Increase	287	219	68

As will be noted from the above the increase in work was not significant, most of the increase occurred after the move to the new wing. It is therefore hoped that over a full year, and with the anticipated changes, the increase will in part justify the increase in Anaesthetic Staff which has been provided.

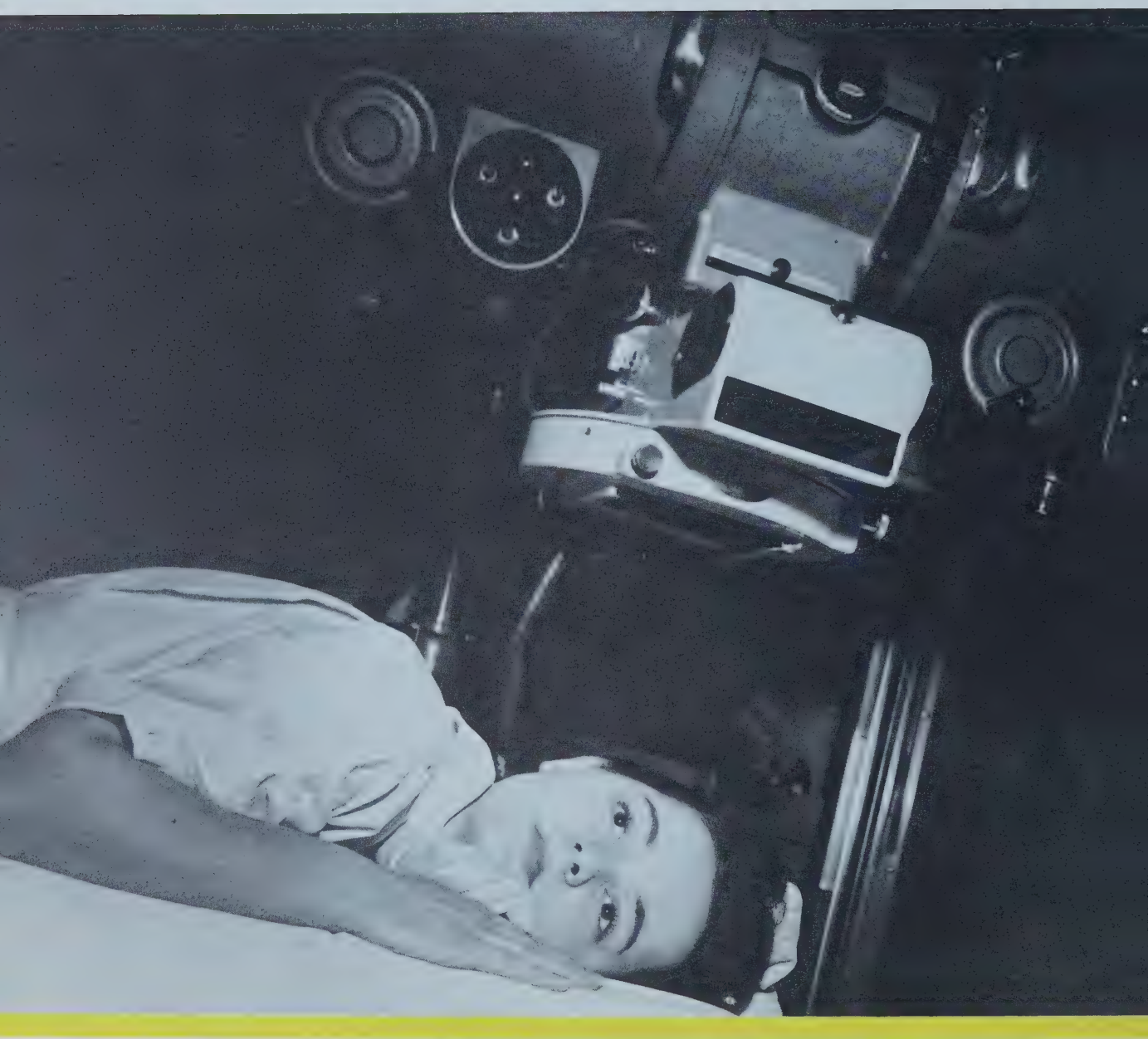
The design of the Recovery Room has proved itself to be very functional. The staff is adequate for the day, but the crying need for 24 hour coverage is greater than ever because of the location of the Recovery Room and the rigid traffic regulations governing the Operating Room. We expect with the new Emergency a further increase in this type of work which will increase the need for 24 hour coverage in the Recovery Room. Adequate post-anaesthetic nursing care is as essential if not more so to the emergency case than to the elective. This coverage cannot be justified on an economic basis anymore than can X-ray and operating room services, but it is just as essential from the more important view of patient care.

Patients cared for in Recovery Room

1959	7,682
1960	7,864
Increase	182

I wish to thank the administrative staffs for their patience and help which has been so necessary during the past year.

E. A. Gain, M.D.
Director,
Department of Anaethesia



Mr. L. R. Adshead,
Administrator.

Sir:

It is my privilege to submit the annual report of the Department of Radiology for the fiscal year ending December 31st, 1960.

Number of patients examined	31,229
Number of radiographic examinations	37,985
Number of large films used	106,850
Number of miniature films used	4,902
Number of fluoroscopic examinations	4,100
Number of patients for deep therapy	208
Number of deep therapy treatments	832
Number of patients for superficial therapy	803
Number of superficial therapy treatments	1,518
Number of consultations concerning radiation therapy	498
Number of patients for clinical photography	833
Number of slides of all types—photography	4,242
Number of art illustrations	167

There has been a slight increase in the number of patients examined and in the number of radiographic examinations as compared to 1959.

Doctor I. D. Hendin joined the Department of Radiology in March 1960. He was successful in passing his Certification examination in Diagnostic Radiology in November. Doctor Hendin is particularly interested in Cardiac Radiology.

We moved into the new X-Ray Department in the Clinical Service Wing in August 1960. Everyone is most pleased with the Department. The patients have a very pleasant Waiting Room. The radiographic examinations can be performed with much greater ease and speed. Most of the old x-rays apparatus was moved to the new Department. A considerable amount of new x-ray apparatus has been installed. The new neuroradiological x-ray apparatus has enabled us to do the more complicated neurological examinations more quickly and more accurately. The Siemens Planograph allows us to take planograms either singly or with multiple films. The installation of the x-ray apparatus in the Operating Rooms has greatly facilitated work.

A very extensive project concerning "Radiation Dosage From Diagnostic X-rays" has been started under the new physicist Doctor Garth Olde and myself. We hope in time to have the amount of radiation that each person receives from radiography tabulated on a diagnostic x-ray card. Eventually we will be able to make an estimate of the hazard of radiation from diagnostic x-rays.

Twenty-one patients received radioactive phosphorus for polycythemia vera in 1960. We are continuing the investigation of eye tumours using radioactive phosphorus. Seven patients were given radioactive gold for the treatment of pleural effusion or abdominal ascites. Radioactive iodine was used ten times in the treatment of cancer of the thyroid. The project concerning "Total Body Radiation and Dose to the Gonads from Radioactive Iodine and Radioactive Phosphorus" is continuing under Mrs. D. Weijer.

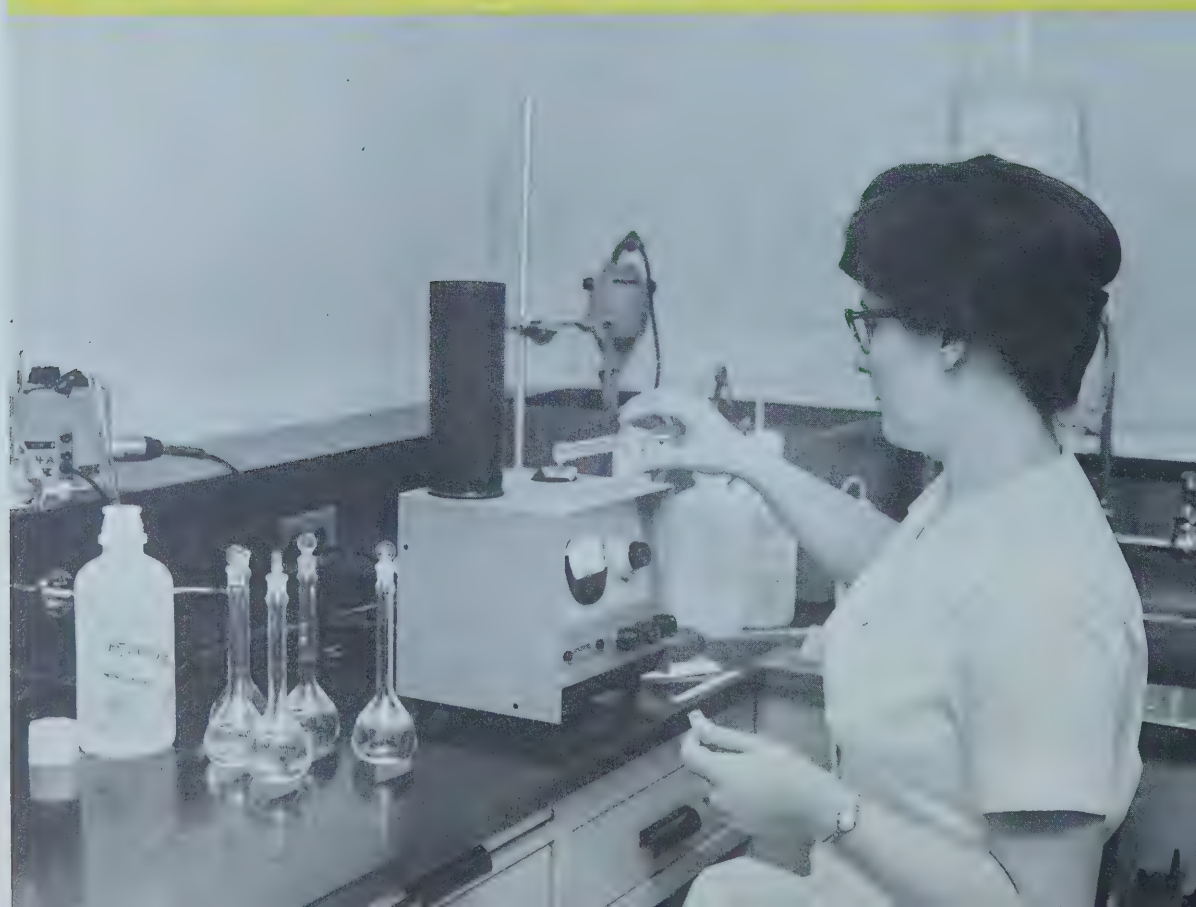
The Department of Photography under the direction of Mr. J. Twyman continues to be very busy. The clinical slide library now contains approximately 22,000 slides. 300 slides are loaned a month for lectures and talks by the staff. The Medical Illustrator, Mrs. Barbara Rhind, is doing excellent work. During the year 1960, the Photographic Department projected 180 films. The total projection time was in the neighbourhood of just over 100 hours.

Miss Doreen Letourneau left the Photographic Department in December 1960 after thirteen years of excellent service.

May I take this opportunity to thank you and your staff for your excellent cooperation during the past year.

Respectfully submitted,
H. E. Duggan, M.D., F.A.C.R.,
Director,
Department of Radiology

DEPARTMENT OF CLINICAL LABORATORY SERVICES



Mr. L. R. Adshead,

Administrator.

Sir:

The year 1960 marked the tenth full year in which the Clinical Laboratory Services of the hospital have been operated as an independent unit. It is worthwhile reflecting for a moment on some of the changes that have come about during this period.

The laboratory service was set up as a separate part of the Division of Pathology in 1949 and it was made into a full department in 1956. Originally, the laboratories consisted of a hematology and E.C.G. laboratories on the present third floor and a metabolic laboratory on the fourth floor of the 1930 addition, plus a biochemistry, hematology and E.C.G. laboratory in the Mewburn Pavilion. New space was provided in the 1950 addition which brought about some centralization of facilities, particularly of biochemistry and hematology. A radioisotope laboratory was opened in 1953 and rapid growth in laboratory services required decentralization of facilities into space in the new polio wing in 1955. This past year has seen the regrouping of all the laboratories, with the exception of one in the Mewburn Pavilion, into a central laboratory unit on the third floor of the clinical services addition. These new laboratory facilities rank among the best clinical facilities in North America and have made possible extentsion of diagnostic work and improvement in methods, laboratory administration and control and will make possible increased teaching and research.

The amount of laboratory work done in the two main areas, that is hematology and biochemistry, has increased from 53,935 to 277,796 tests or about five times in the past ten years. The number of hospital admissions in the same period has climbed from 11,772 to 22,166 or about double. In these areas alone, therefore, the amount of laboratory work per admission has increased by about two-and-a-half times that of the increase in patient turnover. This does not include the provision of special procedures such as radioisotope techniques, which were not in existence ten years ago, or units such as the E.E.G. laboratory where the proportionate increase has been considerably greater. A statistical summary of the work done is provided. The number of tests has increased by 10,249 over the previous year.

Almost a third of a million tests are done each year in the hospital laboratory plus a large number that are referred to the Provincial Laboratory. We may expect some levelling off in the rate of increase in tests and in the future growth will probably occur more in the development of special types of procedures of quite complex nature which this hospital laboratory is looked to by the medical profession in the province to provide.

Routine Patient Service

The most significant developments in the past year's operation have been the move to the new laboratories in the clinical services addition already referred to and the appointment in July of a full-time assistant medical director in the laboratory, Dr. H. E. Bell, a certified pathologist. His main interests are clinical pathology and biochemistry.

The analytical work in the clinical chemistry section under the direction of Dr. D. J. Campbell has been greatly facilitated by the new laboratory arrangements. A method for the analysis of 2-methoxy-4-hydroxy-mandalic acid (V.M.A.) used in the diagnosis of pheochromocytoma and methods for xylose absorption, copper in urine and magnesium in serum have been set up as well as new methods for quinidine, paper electrophoresis and ceruloplasmin. A special effort is made to perform unusual analyses which are required in the diagnosis of special problems that are referred to this hospital. The quality control program in the laboratory has been further extended.

A physicist, whose services are being shared half-time with the Department of Radiology, joined the radioisotope unit in the spring. Diagnostic procedures and handling of isotopes have undergone a complete revision to bring them up to our requirements. With the hematology section of the laboratory special studies on metabolism using iron-59 tracers have been set up.

In the Special Blood Transfusion Unit under Dr. D. I. Buchanan, the development of special techniques for the detection of leukocyte antibodies has proceeded. In spite of considerable technical problems, a technique has been established and studies of patients with leukopenia thought to be of immune nature are being carried out. Over 200 samples have been tested and potent leuko-agglutinins have been found in two patients. One of these had had open-heart surgery and the second was a pregnant woman who was encountering difficulties with blood transfusions. With the knowledge of the cause of the difficulties, these were overcome by provision of leukocyte-free blood. Work is now proceeding to set up similar procedures for the study of blood platelets.

The endocrinology and metabolism unit under the direction of Dr. L. McLeod of the Department of Medicine has been provided with space for steroid analyses in the department, and provides the routine steroid analyses for the hospital. Revision of the analytical techniques used in the laboratory has been carried out and special procedures required in investigation of endocrine problems were set up.

In the new laboratory it is possible to extend the laboratory analyses to out-patients, particularly analysis of specimens mailed in from hospitals and doctors' offices elsewhere in the province. This service is receiving considerable attention and full information, mailing containers, etc., are being distributed. This should make numerous analyses available to hospitals in the rural areas that were not now available. Dr. D. J. Campbell has been co-operating with the Department of Public Health in conducting a quality control program to assess the reliability of certain chemical analyses being done in small hospitals by staff with limited training. It is hoped that this will provide a guide for setting standards of laboratory training.

Education:

Eight students completed training in the School of Laboratory Technologists and were awarded their gold pins and diplomas at a presentation ceremony in May. All eight subsequently qualified as registered laboratory technologists in the certification examinations of the Canadian Society of Laboratory Technologists. Five accepted positions on the laboratory staff.

Ten applicants were accepted to commence training, one of whom found it necessary to withdraw early in the course. Ten students entered their second year of training, making a total of nineteen students. All sections of the laboratory participate in the training to varying degrees, the greatest load falling on the main hematology and biochemistry laboratories. There has been increased effort to train staff beyond the minimum requirements and six members of the staff are registered in the training program leading to specialist certification by the Canadian Society of Laboratory Technologists.

During the summer months nine students from the University of Alberta Course in Medical Laboratory Science were assigned to the laboratory here for practical instruction, four of whom were spending their second summer in the laboratory.

In the C.S.L.T. examinations for certification as registered technologists, one of the hospital students had the highest standing in Northern Alberta in the practical examination and one of the medical laboratory science students who apprenticed in the hospital obtained the highest mark in the written examination. Both these students received awards from the Edmonton Academy of Laboratory Technologists in recognition of their standing .

The program to provide advanced training in clinical chemistry leading to a higher degree (M.Sc.) is being developed in co-operation with the University of Alberta Department of Biochemistry. Two candidates are registered in this course pattern and are carrying on their thesis work in the hospital laboratory, working on analytical problems in clinical chemistry under the direction of Dr. D. J. Campbell. There is an extreme nationwide shortage of trained clinical chemists and effort will be made to extend this program to attempt to meet this demand.

In the graduate training in clinical pathology, Dr. R. Swallow completed one year of training in clinical pathology. The training program has been extended to a two-year pattern which is a more realistic requirement than the one year previously accepted. We have also provided six months training for two junior house staff for the Department of Medicine. This has proven mutually beneficial to these departments and their house staff. Graduate seminars and clinical rounds were held weekly as well as individual teaching sessions on laboratory interpretations.

One physician from Ontario attended the radioisotope laboratory for training in radioisotope techniques and two pathologists from the province have started a course of studies to become qualified in the use of these materials.

Research

Research activity has increased in all sections and further development has continued. In addition to the specific studies listed, the laboratory sections have provided analytical and other assistance to projects being carried out by other departments. Some special provision of staff to fulfill these requirements outside of routine analytical duties is required. Research projects which were being carried out by members of the laboratory staff include the following projects:

(1) *The Use of the Indirect Coombs Consumption Test for the Detection of Leukocyte Agglutinins*—Dr. D. I. Buchanan and D. Browning, R.T.

(2) *Investigation of an In-Vitro Method for Assay of Erythropoietin*—Dr. R. E. Bell.

(3) *Evaluation of Blood Uric Acid Methods*—Dr. D. J. Campbell and Miss E. Tomm, B.Sc.

(4) *Development of a Micro Method for Blood Xylose*—Dr. D. J. Campbell and Mr. S. Harrold, B.Sc.

(5) *Study of Indole Excretion in Malabsorption Syndromes*—Dr. D. J. Campbell and Mr. S. Harrold, B.Sc.

(6) *Evaluation of Automatic Analysis of Serum Protein*—Dr. D. J. Campbell and Miss M. Saville, R.T.
Evaluation of the Chromatostrip Method for B.U.N.—Dr. D. J. Campbell and Miss M. Saville, R.T.

(7) *Electrophoretic Techniques for Study of Hemoglobin Abnormalities*—Dr. D. J. Campbell and Mr. T. Boenisch.

(8) *Comparative Value of Leukocyte Alkaline Phosphatase and Basophil Counts in Diagnosis of Myeloproliferative Disorders*—Dr. R. E. Bell and D. Comfort, R.T.

(9) *A Study of Fluorescent and Other Special Staining Techniques in Study of Blood and Bone Marrow*—Dr. H. E. Bell and D. Buxton, R.T.

(10) *A System of Quality Control in Hematology Laboratories*—Dr. R. E. Bell and D. Folkman, R.T.

Yours sincerely,

R. Edward Bell, M.D.,
Director,
Department of Clinical Laboratory Services

DEPARTMENT OF PATHOLOGY

Mr. L. R. Adshead,

Administrator.

Sir:

It is my privilege to report to you upon the activities of the Department of Pathology for the year ending December 31st, 1960.

In the service field the department continues to expand. During the year, 581 autopsies were performed, of which 150 were medico-legal cases or cases dead on arrival at the hospital. Surgical specimens received and reported upon numbered 6,495, an increase of about 300 over the previous year. A service in cytology is now being offered, and a technician, Miss Sally McLachlan, who had six months' training in this field in Chicago, has now returned and is doing excellent work as a screener.

The area on the operating room floor of the new service wing, set aside for rapid diagnosis of surgical specimens, is proving very satisfactory, and members of the Pathology Staff are in attendance in the operating room each day to provide this service.

A new morgue presently under construction will provide excellent accommodation and facilities for the autopsy service of the hospital. It is hoped that it will be in operation within the next few months.

During the year Dr. James H. Stirrat resigned to accept a position in the Perth Chest Hospital, Perth, Western Australia.

Dr. T. K. Shnitka was appointed to the staff of the Department, on January 1st, 1961, following a year of graduate studies at Johns Hopkins University, in the fields of histochemistry, and electron microscopy, and will spend part of his time in research studies in these areas, as well as in the service field of hospital activities.

Dr. G. O. Báin is continuing research activities on spleen cell transfer, and since Dr. Stirrat left, has been in charge of the hospital autopsy service.

The members of the department continue to take an active part in both undergraduate and graduate teaching, within the department itself, as well as in the graduate training programs of other departments.

All of which is respectfully submitted.

JOHN W. MACGREGOR, M.D.,
Professor and Director,
Department of Pathology

Mr. L. R. Adshead,

Administrator.

Sir:

I have the pleasure to submit my first report as Director of the Out-Patient Department and the Emergency Department.

During the year, the facilities of the Out-Patient Department were moved from the Alberta-Jasper Building to the Clinical Services Wing of the Hospital. This move was made without disruption to services, and with minimal inconvenience to the patients. The additional space and comfort of the surroundings has added greatly to the efficiency of the Department.

The Emergency Department has also moved from the ground floor of the 1913 Wing to the Clinical Services Wing and is functioning in a much more efficient and capable manner. The increased facilities provide a far better service to the public.

The Women's Auxiliary has provided volunteer workers for the Out-Patient Reception Area, and their help is greatly appreciated.

The donation by the Junior White Circle of complete layettes is again acknowledged with thanks.

May I take this opportunity to express my appreciation to Mrs. Carlyle and her staff, to Miss MacDonald and her staff, to the Medical Staff, and to the Administrative Staff for the great degree of co-operation which has been given to me since my appointment to this Department.

Respectfully submitted,

ADAM S. LITTLE, M.D.,
Director,
Out-Patient Department.

NURSING

Mr. L. R. Adshead,
Administrator.

Sir:

It is my pleasure to present herewith the Annual report for the Department of Nursing for the year 1960. As you will read in the report, it has been another year of great activity.

The staff was represented at the Annual meeting of the Alberta Association of Registered Nurses held in May in Banff and at the Annual Convention of the Associated Hospitals of Alberta held in October in Edmonton. Miss Thompson, as chairman of the Committee on Nursing Education and I as chairman of the Committee on Legislation and By-laws have attended a number of Executive meetings of the Alberta Association of Registered Nurses. Each of us has attended a Committee meeting of the Canadian Nurses' Association in Ottawa while I also attended the biennial meetings of this organization in June in Halifax. The Nursing Care Survey Committee of the Provincial Government has held nine meetings during the year at which I have been present. Up to this point, the Committee has been busy collecting and assembling data.

Miss Ruth Shaw, Clinical Instructor in Metabolism, has acted as chairman of the Northern Sub-Committee, Committee on Nursing Education, Alberta Association of Registered Nurses during this past year.

We have had a number of interesting visitors during the year. The following had itineraries arranged through the International Council of Nurses which brought them to Edmonton:

1. Miss Juanita Rule—Organizing tutor for the Royal College of Nursing, London, England.
2. Miss Mavis Mitchell—Matron of the Footscray Hospital, Melbourne, Australia.
3. Miss Joan McFarlane—Sister Tutor at the Royal Infirmary, Glasgow, Scotland.
4. Miss Edith Preddy—Matron of the Radcliffe Infirmary, Oxford, England.

We have also enjoyed the visits of Miss Mildred Walker, Department of Health and Welfare, Ottawa; Miss Beulah Bourns, Seoul, Korea and Miss C. E. Custerson of Nottinghamshire, England.

Nursing Officers

Two new positions in the Nursing Officer staff were created during 1960.

1. The Hospital Board approved the establishment for an Associate Director of Nursing. When it proved very difficult to obtain a person suitably qualified for the position, it was agreed to set up a temporary position of Administrative Assistant to the Director of Nursing for a trial period of one year. Mrs. Sonia Anhill Batt, a former member of the teaching staff was appointed to the position, and has filled it very capably. We would be happy to see the position continued on this basis.

2. In November it was possible to fill the second Nursing Officer position which had been approved in Psychiatry. Mrs. Jennie Wilting, B.Sc. who was appointed, is primarily concerned with the educational programme for student nurses during their eight weeks of clinical experience in this department.

Eight other new members joined the Nursing Officer staff. Miss Esme Baker who assumed the position of Clinical Instructor in the Operating Rooms completed the postgraduate course in Operative Aseptic Technique at Johns Hopkins Hospital, with the assistance of the Professional Training Grant.

Of the seven remaining appointments, six were of nurses with graduate preparation for the positions they assumed and the seventh had had excellent experience. We feel we were fortunate to be able to select such satisfactory replacements for our vacancies.

Two Nursing Officers were granted leave of absence associated with their vacations to attend summer school at the University of Alberta. In so doing, Miss Asnath Heyn completed the requirements for the degree programme in Nursing.

Nursing Service

Although there has been very little variation in the total admissions over the past three years, there has been a marked rise in the daily average occupancy and the percent occupancy which has been reflected in the activity in patient care areas.

	Daily Average Occupancy	*Percent Occupancy*
1958	882	79
1959	956	86
1960	977	87

The Department was therefore grateful for the increases in budgeted establishment which were approved for this year as follows:—

For General wards—

9 Graduate nurses
10 Nursing Aides
2 Orderlies
1 Assistant Orderly Supervisor

For Paediatrics—

1 Assistant Charge Nurse
1 Ward Aide

For Emergency, Outpatient and the Operating Rooms which transferred to new, enlarged facilities:

Emergency and Outpatient

3 Graduate nurses
1 Ward Aide

Operating Rooms

1 Assistant Supervisor
4 Graduate nurses
1 Operating Room Assistant
1 Ward Aide
1 Orderly

A new staffing pattern was worked out for two of the Medical Wards in the Mewburn Pavilion. This was done to reduce the amount of medical experience and also of shift experience which the student nurses were receiving in this area. An Assistant Charge Nurse and six Certified Nursing Aides were added and the student nurses were withdrawn.

The opening of the Clinical Services Wing during the summer months involved the transfer of the following nursing care areas:

July 15—the Emergency section moved to expanded and much more conveniently planned quarters on the Second floor.

August 19—the Operating Rooms moved to the Fifth floor. The new location includes fourteen theatres on a double corridor plan with work and storage areas in the centre.

November 11—the Outpatient Clinic moved from an overtown location to the Second floor. The Emergency and Outpatient Services now function as one unit. It has been of great assistance to the Nursing staffs of both areas to have had the guidance and support of the newly appointed Clinical Director.

The chapel which is located in this wing is used by the student nurses each morning for a brief service before going on duty.

With the commencement of renovation of the 1912 wing, it became necessary during August to relocate Nursing Unit 31 and Nursing Unit 41. The patients from the former were transferred to the Sixth floor of the Clinical Services Wing in the section ultimately to be occupied by the Case Rooms. The patients from Nursing Unit 41 were divided. Four Solaria in the 1957 wing became temporary patient care areas and we were able to utilize other space which had been occupied by laboratories and recovery room.

During September two graduate nurses set up an Intravenous therapy service. All areas of the hospital but the Case Rooms, Paediatrics and the Operating Rooms are covered.

The following educational opportunities have been afforded to members of our staff or to visitors.

The two Assistant Operating Room Supervisors attended a workshop in Operating Room Nursing in Calgary on March 10 and 11.

Four members of the graduate staff attended a workshop in Medical Nursing in Edmonton on March 16, 17 and 18. Dr. Elizabeth Giblin of the University of Washington who conducted the workshop was a guest at a luncheon at the hospital which afforded several of our staff the opportunity of meeting her.

Many of the senior staff attended a one-day workshop in Guidance and Counselling conducted by Mr. D. Fair during October.

Two British-trained nurses were afforded the opportunity of clearing their deficiency in Obstetrical Nursing and successfully wrote the Conjoint examination in this subject in August.

During the period January to March, thirteen students in the course in Teaching and Supervision, University of Alberta School of Nursing, did concurrent field work in the classroom or various clinical areas. Field work facilities were also afforded to students of the University School of Nursing in the courses in Advanced Practical Obstetrics and Care of the Premature Infant as follows:

	Advanced Obstetrics	*Care, Premature Infant*
Spring	7	6
Fall	4-3	7

During April and May, we provided field work for six students from the University of Saskatchewan, three in Nursing education and three in Administration of Nursing Service.

Nursing Education

Again we held two Graduation Exercises this year, one in March and one in October. There were twenty-eight of our own students and one affiliating student from the Provincial Mental Hospital honored at the March Exercises and eighty students honored at the October Exercises. We are happy to report that all candidates sitting the Conjoint examinations in 1960 were successful. We are also pleased to report that twenty-one members of the January class and thirty members of the September class continued with us as members of the graduate staff.

Classes were admitted twice during the year with registrations of thirty-four at the end of January and ninety-two in September. As well, three affiliating students were accepted from the Provincial Mental Hospital to undertake the two-year period in general Nursing. A waiting list for the September class was set up in March and for the first time it was necessary to set up a waiting list for the January class.

Twenty-one students withdrew from the School for the following reasons:

To be married	11	
Unhappy in Nursing	3	
Personal reasons	2	
Unsuccessful	2	
Transfer to other faculties	2	
Health reasons	1	(to be readmitted in January, 1961)
	21	

Three former students were re-instated in the School and two of these were graduated in October. Three members of the Class of September, 1960, and three members of Class January, 1961 were given permission to be married during their last six months and to continue in the School.

To calculate our attrition rate, the following data on behalf of the two classes to be graduated during 1960, is presented.

	Class January, 1960	Class September, 1960
Number at registration	31	85
Number withdrawn	3	7
Number transferred out	1	2
	27	76
Number transferred in	1	4
Number graduated	28	80
Attrition rate	9.7%	5.9%

The national attrition rate is somewhere over seventeen percent.

We have become increasingly aware of the limited financial means of some of our students. For this reason we were especially appreciative of the bursaries under the Alberta Blue Cross Plan which were made available to three of our students in January and to two of our students in June. These fifty-dollar bursaries are awarded at the end of the preclinical period on a similar basis to those of the United Commercial Travellers. As well, twenty-six applications were processed for financial assistance under the Students' Assistance Act. The Students' Revolving Loan Fund provided help to seventeen students to a total of six hundred and sixty-five dollars. Four loans were repaid during the year so that at the end of 1960 thirteen loans were outstanding to a total of five hundred and thirty-five dollars. Ten of these are due for repayment in 1961. We feel this fund has met a real need.

Miss M. Schumacher, Advisor to Schools of Nursing, paid her annual visit to the School during the period November 8 to 18. On this visit she followed a plan whereby she will visit each clinical area once every three years. Accordingly, her time was concentrated during this visit on the Surgical areas. The report of her 1959 visit which was received during 1960 was considered at the Spring meeting of the Nursing Advisory Board and was studied in detail at two meetings of the Executive of the Board.

Curriculum Steering Committees have continued their review of the curriculum in the first year and in the second and third years. There was a decrease in hours in the Physical Sciences with the elimination of the laboratory periods in Normal Nutrition and an increase in hours in the Social Sciences. The following change in Class hours has occurred over this past six years.

	1954-1955	1960-1961
Lecture Hours	780	763
Laboratory Periods	—	133
Total	780	896

At the same time more stress has been placed on Clinical teaching. At present, the average hours of clinical teaching for each student during her course is two hundred and thirty-four. This means the total teaching hours at present are eleven hundred and thirty. The Regulations Governing Schools of Nursing require a minimum total number of hours of classroom and clinical instruction of eight hundred and fifteen, though the recommended number is one thousand.

The permanent record cards have been revised. These are used throughout the students' programme and ultimately serve as a complete summary of the three years in the School for each graduate. The acquisition of a photocopying machine in the Nursing Records Office has greatly expedited the provision of transcripts of records for graduates for which we are frequently asked.

The following are the highlights of the public relations activities of the School.

Open House was held during Varsity Guest Weekend and approximately one thousand visitors were shown through the residence and hospital.

We provided staff and student speakers for the Career Days for two city high schools.

The Choir put on a concert during April and participated in the Allied Arts Summer Festival in June, a Church Service in October and the Rotary Carol Festival in December. As well, they contributed musical items to the programmes of both of our Graduation Exercises.

The students were hostesses to the Talent Show which is an annual event among the Schools of Nursing of Northern Alberta each Spring. They sponsored an informal dance during Frosh Introduction Week and the Annual Nurses'-Engineers' Dance helped to swell the contribution to World University Services.

We were delighted when again one of our students was a cash award winner in the annual Macmillan Case Study Competition. The details are given herewith:

> Adachi, Emiko—"*Spinal Injury and Paraplegia*", The Canadian Nurse, July 1960, pages 618-624. Miss Adachi was an intermediate student in the School when she prepared this study.

Nursing Advisory Board

Two meetings of the full Board were held during the year, on February 10 and on August 23. The main item of business at each meeting was a review of the candidates to be presented for graduation and the selection of the prize recipients. At the February meeting a recommendation was formulated that students who are reinstated in the School should be required to pay a reinstatement fee. This policy has now been put into effect.

With the retirements during 1960, of Dr. A. C. McGugan as Superintendent of the University Hospital and of Dr. M. R. Marshall as Professor and Director of the Department of Ophthalmology and Rhino-Oto-Laryngology, the Nursing Advisory Board lost two of its most interested members and strong supporters. We would like to pay tribute to the very valued contribution of each of them to the School of Nursing on behalf of the many who were graduated from the School during their period of association with it.

The Executive of the Nursing Advisory Board has met eight times during the year to conduct the business of the Board between its regular meetings.

Nurses' Residence

We were saddened to receive news of the death of Miss Agnes M. J. Macleod in Ottawa in August. Miss Macleod was Director of Nursing Services, Department of Veterans Affairs at the time of her death. She was a graduate of this School who had maintained associations with it and we were gratified that the Hospital Board, at its October 13, 1960 meeting, agreed to the designation of the library in the Nurses' Residence as the Agnes M. J. Macleod Memorial Library. Plans are now underway for placing certain Memorials therein.

No major changes have taken place in the building but a constant programme of maintenance has kept it in good appearance and order. Small kitchenettes on two floors have been remodelled as ironing rooms and a third kitchenette has been remodelled and turned over to Macleod Club for storage of equipment, supplies and files.

We have welcomed Alumnae groups back for Class reunions on four occasions this year, three during the summer and one during the Christmas season. A tea in the Residence and a tour of the hospital has usually formed part of the reunion programme.

It is a pleasure to have the Women's Auxiliary and the Alumnae monthly meetings in the Nurses' Residence. Both groups are keenly interested in hospital activities and requested tours after the opening of the Clinical Services Wing. Both groups have assisted us in Social activities of the School, the Women's Auxiliary by organizing teas preceding our two Capping Exercises and the Alumnae by acting as hostesses at the receptions following our two Graduation Exercises. We would wish to record here our sincere appreciation to these two groups.

Summary

1960 has again been a busy year in the Department of Nursing. It was gratifying that the moves to the new Clinical Services Wing were accomplished with no interruption of service to patients. The closing of the 1912 section of the building for renovations has not decreased the number of patients cared for, as the Nursing Units involved have been relocated elsewhere in the hospital. That all this has been possible is due in no small measure to the patience, co-operation and loyalty of the staff of the Department to whom we express our appreciation.

We would also wish to express appreciation to the members of the Medical Staff and particularly to those who lecture in the School of Nursing, to the Directors and staffs of other departments in the hospital and to the Administration.

It is only with the continued co-operation and assistance of all that we in the Nursing Department are able to give kindly and efficient care to our patients, which is our aim.

This report is respectfully submitted.

Jeanie S. Clark,
Director of Nursing

DIETARY DEPARTMENT

Mr. L. R. Adshead,

Administrator.

Sir:

The following Annual Report of the Dietary Department for the year 1960 is hereby submitted.

Two staff dietitians were appointed—Miss Olga Porylo in charge of special diets, and Miss Norma King in charge of diabetic diets. Resignations were received from Mrs. Margaret Hamilton and Mrs. Helen Campbell. Three Dietetic Internes completed their course in 1960. Miss Elaine Clark, University of Alberta, commenced her Dietetic Internship in September. An Integrated Dietetic Internship program is being planned for University students in Household Economics, for the coming year.

The following new pieces of equipment were received—a silex coffee heater for the Nurses' Residence, a stainless steel Hobart mixing bowl, twelve stainless steel meal tray wagons, three mobile soak sinks, three potato barrels, twenty Stanley beverage urns, and four French Fryers. A new non-skid floor was laid down in the dishwashing room. This necessitated the use of paper service for patients and staff for three days, while this dish machine was not being used. A coffee bar was opened in the new Operating Room area. The opening of the Outpatients' Clinic in the new wing has made it much more convenient for our teaching dietitian, who attends the clinic one day a week.

The attached graph shows that the number of staff meals served is up this year, and the patient meals slightly down; but there is an increased overall total. Of the patient meals served, 81% were classified as House Diets, 15% were Therapeutic, and 4% Diabetic Diets.

Respectfully submitted,

Irene Torrington, r.dt.

Director,

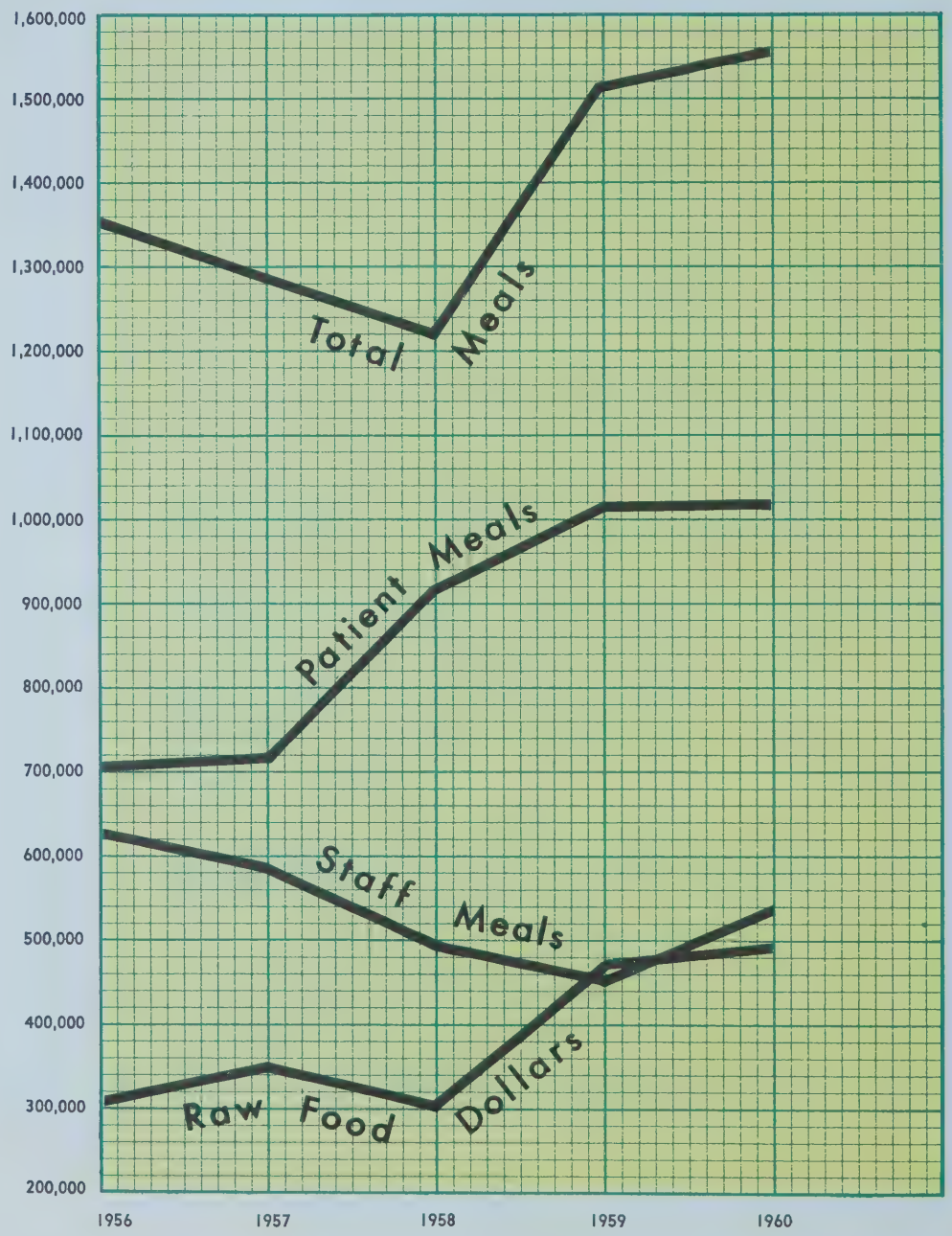
Dietary Department

UNIVERSITY OF ALBERTA HOSPITAL
COMPARATIVE MEAL COUNTS, FOOD COSTS
1958-60

	1958	1959	1960
MEAL COUNT			
Staff	482,039	455,736	*177,262
Patients	914,493	1,049,784	*339,313
TOTAL MEALS	1,396,542	1,505,520	*516,575
RAW FOOD COST	$ 371,316.98	$ 467,417.45	$ 490,142.75
AVERAGE COST PER MEAL	26.58¢	31.05¢	†90.97¢
* Meal Day Count (total meals÷3)			
† Average cost per meal day			
AVERAGE PRICES—BASIC FOODS			
Meat, lb.	$ .4114	$ .4113	$ .4354
Turkey, lb.	.4466	.3792	.4359
Butter, lb.	.6424	.6415	.6400
Eggs, doz.	.3780	.3694	.3700
Potatoes, bushel	1.4947	1.4600	1.4700

UNIVERSITY OF ALBERTA HOSPITAL

1956—DECEMBER 31, 1960



Mr. L. R. Adshead,

Administrator.

Sir:

It is my privilege to submit the Annual Report of the Department of Pharmacy for the year 1960.

The cost of supplies for the year is proportional to that of past years. The inventory is high in order to assure adequate supplies at all times. It is anticipated that some further reduction in drug costs will occur in 1961 due to the establishment of the tender system in the purchasing of quality drugs. It must be stated that this hospital has not turned to small manufacturing companies for drug supplies.

The establishment of the night emergency medication cupboard in the clinical service wing has not been finalized—however, it is anticipated that this unit will be functioning by the middle of 1961.

As in the past, the teaching of pharmacology to nursing students and presentation of laboratories at the university to the pharmacy and medical students has been carried out. Practical instruction in hospital pharmacy has been made in our department for pharmacy students.

The activity of the Pharmacy Therapeutic Committee together with that of the Joint Pharmacy Therapeutic Committee is being carried on for the benefit of the hospital and the medical profession.

The Out Patient Pharmacy was moved and put into operation as of November 13, 1960. This department is taking care of the out patient, cancer clinic patient, and staff prescription needs. It is expected that as the night emergency medication cupboard is established then the out patient pharmacy will look after the maintenance of adequate supplies on these emergency stocks. Work load in this department is heavy and the assistance given by a student nurse certainly alleviates the situation.

The establishment of extensive facilities for pre-packaging of drugs by mid-1961 will allow the pharmacy and the out patient pharmacy to keep pace with the heavy demands of the hospital. However, it must be remembered that one cannot spread valued personnel too thinly—otherwise errors could occur through lack of supervision.

A summary of the work done, the costs of drugs in 1960, and the antibiotics and corticotrophic hormones purchased is shown in the following tables.

Respectfully submitted,

W. W. Maday,
Director,
Pharmaceutical Services

	1958	1959	1960
Drugs	$145,414.98	$162,509.69	$223,857.82
Case Room	2,505.84	3,763.38	4,002.89
Operating Room	16,092.05	19,021.76	30,517.26
O.P.D.	11,621.47	16,160.27	18,762.75
X-Ray	3,867.04	3,302.62	5,207.47
Cystocopy	2,027.30	1,824.41	5,301.46
Diet Kitchens	2,644.03	2,553.41	3,255.79
Laboratories	6,978.67	10,331.77	17,438.25
Emergency	3,328.20	5,111.26	6,671.99
Small Departments	1,370.77	2,334.65	2,540.04
Liquor Purchases	3,950.50	4,906.80	4,966.35
Central Supply Room	3,503.39	4,531.90	4,820.47
Health Service	3,091.48	3,582.89	4,570.57
Cardiac Recovery Room	------	234.19	103.69
Cardio-vascular Surgery	------	203.23	439.67
Premature Nurseries	------	464.76	499.78
Teaching Department	------	94.97	65.94
	$206,395.72	$240,931.96	$333,022.19
Stock Inventory	$ 58,231.92	$ 68,079.03	$ 88,469.61
Stock Turnover	3.6%	3.5%	3.7%
Services			
Prescriptions	70,697	141,167	143,216
Floor Emergency Supplies	3,960	12,336	12,984
Floor Requisitions	15,320	14,040	14,624
Small Departments	4,264	7,204	8,140
Antibiotics	86,290	21,634	23,010
Narcotic Requisitions	12,030	13,140	13,165
Daily Average	535	574	688

Comparative costs of antibiotics and corticosteroids for the past three years.

	1958	1959	1960
Crystalline Penicillin	$ 5,136.00	$ 6,831.64	$ 12,568.76
Proc. Aq. Pen. 40 M.U.	2,113.00	3,886.88	2,948.82
Streptomycin	427.00	730.00	406.13
Neomycin	1,530.00	1,711.81	1,789.47
Bacitracin	637.00	185.16	296.16
Aerosporin	96.00	66.72	1,120.94
Chlortetracycline	414.00	447.15	334.81
Chloramphenicol	25,895.00	35,353.66	27,383.90
Oxytetracycline	1,700.00	3,858.87	391.94
Tetracycline	4,030.00	3,434.19	6,666.36
Erythromycin	1,839.00	3,960.01	4,158.28
Cortisone	956.00	914.08	963.34
Hydrocortone	4,376.00	6,440.21	7,057.09
Prednisone	6,095.00	2,728.29	3,787.14
A.C.T.H.	677.00	1,141.30	1,162.20
Novobiocin	856.00	631.40	940.09
Prednisolone	1,049.00	4,167.80	959.54
Triamcinolone	2,147.00	949.43	850.84
Kanamycin	346.00	50.67	596.24
Varidase	573.00	10.72	915.50
Demethylchlortetracycline HCL	------	------	904.82
	$ 60,892.00	$ 77,499.99	$ 76,202.37

Mr. L. R. Adshead,
Administrator.

Sir:

It is again my pleasure to submit the annual report of the Personnel Department for the year ending December 31, 1960.

The opening of the Clinical Services wing was the major occurrence during the past year. All establishments created by the opening of this wing were filled during the year.

Group Life Insurance coverage was revised during the past year. The policy now provides for "paid up" insurance, for all retiring employees eligible for a pension under the provisions of the "Public Service Pensions Act", equal to one-third of the coverage held at the time of retirement.

An increase in the rate of contributions to the Welfare and Charity Fund, from ¼ of 1% to ½ of 1% of gross salary was approved and implemented January 1, 1961.

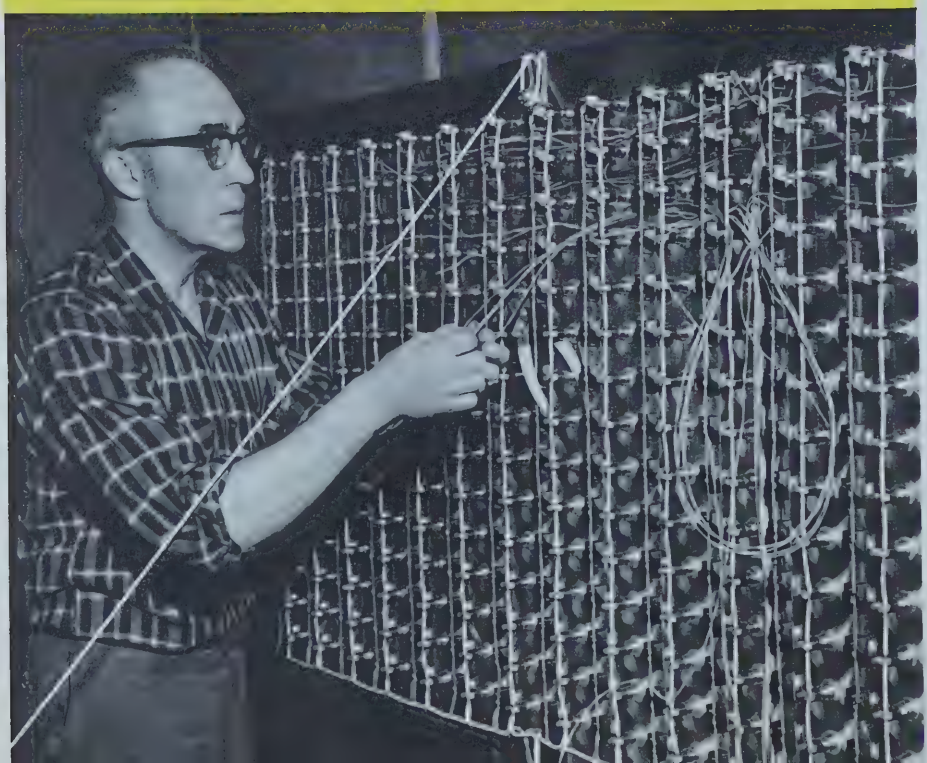
As a result of an abundance of eligible persons to fill manually skilled jobs little difficulty was experienced in maintaining a full establishment.

The rate of turnover remained constant with a total of 856 separations from staff during the year. Establishment and separations by department are shown below.

Respectfully submitted,
J. L. PEDDEN,
Personnel Officer

	Budgeted Establishment 1960		Separations 1959	Budgeted Establishment 1961		Separations 1960
	Full Time	Part Time		Full Time	Part Time	
Administration	86	8	42	87	8	42
Graduate Nurses	335	4	200	342	9	238
Certified Nursing Aides	100	---	37	109	--	52
Ward Aides	117	---	125	118	--	126
Orderlies	82	---	40	81	--	47
Ward Clerks and Stenographers	27	2	11	27	2	5
Nurses' Home & Interns' Quarters	28	---	6	27	1	5
Medical Records	25	---	8	26	1	11
Medical Directors	---	5	---	1	5	--
Anaesthesia	2	---	--	2	--	--
Clinical Laboratories & Research	74	16	34	97	13	37
Pharmacy	10	---	--	12	--	4
Orthopaedics	4	---	1	4	--	--
Ophthalmology	1	---	1	1	--	--
Rehabilitation, inc. Social Service, Psychiatry & Academic School	47	1	23	52	1	26
X-Ray	26	---	9	27	--	15
Dietary	137	13	114	139	13	135
Housekeeping	76	---	34	75	--	47
Janitors & Elevator Operators	43	---	15	42	--	14
Linen Services	67	---	35	67	--	36
Maintenance	45	---	12	46	--	16
	1,332	49	747	1,382	53	856

MAINTENANCE



LONG SERVICE AWARDS

Back Row: Miss F. Hooson, Mrs. J. McNeill, Mr. D. Schneider, Mr. C. Anderson, Mr. S. Callen, Mr. E. Rose, Mr. J. Kibbler, Mr. J. Beaton, Mr. L. R. Adshead.

Middle Row: Miss E. Greig, Miss F. King, Miss J. Lees, Mrs. M. Angus, Miss J. Nairn, Mrs. R. Garlick.

Front Row: Miss M. Scott, R. Sherriff, Miss C. Mackay, Mrs. O. Porritt, Miss W. Nicoll, Mr. T. Robson, Mr. A. C. Waters.

COMPARATIVE STATISTICAL REVIEW 1959 - 1960

ADMISSIONS:	1959	1960
Total	22,042	22,160
Private	712	736
Semi-Private	4,138	3,859
Standard	12,081	12,088
Out Patient Department	933	1,235
Department Veterans' Affairs	477	427
Staff	213	233
Others	3,488	3,589
RELIGION:		
Protestant	6,051	4,696
Roman Catholic	4,330	4,491
United Church	3,776	4,465
Presbyterian	674	746
Anglican Church of Canada	2,488	2,750
Lutheran	1,586	1,627
Others	3,137	3,391
NATIONALITY:		
Canada	16,129	16,469
British Isles	2,054	1,943
U.S.A.	1,090	1,134
Others	2,769	2,620
BY DEPARTMENT:		
Medical	4,927	4,813
Surgical	3,542	3,520
Obstetrical	2,253	2,446
Gynaecological	1,629	1,667
E.E.N. & T.	1,548	1,712
Orthopaedic	1,836	1,778
Dermatology	174	149
Neuro-Surgery	547	582
Paediatrics	1,584	2,197
Metabolic	494	310
Genito-Urinary	1,015	972
Cardiology	457	343
Others	2,046	2,197
Maximum Admissions any one day	104	89
Minimum Admissions any one day	22	18
Maximum Discharges any one day	142	141
Minimum Discharges any one day	12	11
Maximum in Hospital any one day	1,074	1,068
Minimum in Hospital any one day	630	671
Number of patients at beginning of year	750	799
Total number of patients deceased during year	601	587
Total number of patients at end of year	799	796
Total number of patient days	349,087	356,449
Daily average number of patients	956	976
Average stay of patient (in days)	15.8	15.5
X-RAY DEPARTMENT:		
Radiographs (films)	102,536	106,850
Radiographs (examinations)	36,060	36,131
Fluoroscopies	3,640	4,100
X-Ray Treatments	2,705	3,036
LABORATORY DEPARTMENT:		
Examinations	275,966	290,086
B.M.R.'s	529	412
E.C.G.'s	5,790	2,036
Total	282,285	292,534
OPERATIONS:		
Major	4,285	4,933
Minor	4,518	4,345
Genito-Urinary	3,598	2,119
Total	12,401	11,397
OUTPATIENT VISITS:	116,611	122,091

INDEX

	Page
University Hospital Board	2
Administration	3
Medical Staff	4
House Staff	6
Medical Staff Committees	7
Report of the Business Administrator	8
Finances	10
Report of the Medical Superintendent	11
Report of the President, Medical Staff	12
Special Services and Research	13
A Typical Day in the Hospital	16
Department of Medicine	18
Department of Surgery	21
Department of Obstetrics and Gynaecology	25
Department of Paediatrics	28
Department of Psychiatry	30
Department of Rehabilitation	31
Department of Anaesthesiology	34
Department of Radiology	36
Department of Clinical Laboratory Services	38
Department of Pathology	42
Department of Out-Patient Services	43
Department of Nursing	44
Dietary Department	50
Department of Pharmacy	53
Personnel Department	55
Maintenance	56
Long Service Awards	57
Comparative Statistical Review	58

UNIVERSITY
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